

1191

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1176

Met	Pro	Arg	Ser	Ser	His	His	Pro	Pro	Arg	Arg	His	Tyr	His	His	His
1				5					10				15		

His	Tyr	His	Gln	Pro	Pro	Pro	Ser	Pro	Cys	Pro	Ser	Pro	Pro	Leu	Thr
		20						25					30		

Ser	Pro	Ser	Pro	Leu	Ser	Trp	Ile	Leu	Trp	Thr	Cys	Trp	Pro	Ser	Thr
		35					40					45			

Ala	Ala	Thr	Arg	Pro	Gly	Arg	Arg	Lys	Trp	Gly	Cys	Arg	Leu	Cys	Pro
	50					55					60				

Arg	His	Ser	Ser	Pro	Leu	Leu	Leu	Leu	His	Leu	Asn	Leu	Leu	Ala	Trp
65					70					75					80

Ala	Pro	Tyr	Pro	His	Pro	Ala	Thr	Thr	Arg	Gly	Asp	Arg	Lys	Gln	Lys
				85					90					95	

Lys	Arg	Asp	Gln	Asn	Lys	Ser	Ala	Xaa	Leu	Arg	Tyr	Arg	Gln	Arg	Lys
			100					105					110		

Gly	Ala	Gly	Gly	Val	Glu	Gly	Xaa	Gly	Lys	Gly	Lys	Leu	Xaa	Gly	Gly
		115					120					125			

Trp	Glu	Gly	Lys	Gly
130				

&lt;210&gt; 1177

&lt;211&gt; 583

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1177

Thr	Ala	Gln	Arg	Pro	Arg	Ser	Pro	Glu	Asn	Cys	Arg	Pro	Ser	Thr	Met
1				5					10				15		

1192

Trp Leu Arg Ala Phe Ile Leu Ala Thr Leu Ser Ala Ser Ala Ala Trp  
 20 25 30

Ala Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Val His Gly Lys  
 35 40 45

Val Leu Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala  
 50 55 60

Ile Phe Leu Gly Ile Pro Phe Ala Lys Pro Pro Leu Gly Pro Leu Arg  
 65 70 75 80

Phe Thr Pro Pro Gln Pro Ala Glu Pro Trp Ser Phe Val Lys Asn Ala  
 85 90 95

Thr Ser Tyr Pro Pro Met Cys Thr Gln Asp Pro Lys Ala Gly Gln Leu  
 100 105 110

Leu Ser Glu Leu Phe Thr Asn Arg Lys Glu Asn Ile Pro Leu Lys Leu  
 115 120 125

Ser Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Thr Pro Ala Asp Leu Thr  
 130 135 140

Lys Lys Asn Arg Leu Pro Val Met Val Trp Ile His Gly Gly Gly Leu  
 145 150 155 160

Met Val Gly Ala Ala Ser Thr Tyr Asp Gly Leu Ala Leu Ala Ala His  
 165 170 175

Glu Asn Val Val Val Val Thr Ile Gln Tyr Arg Leu Gly Ile Trp Gly  
 180 185 190

Phe Phe Ser Thr Gly Asp Glu His Ser Arg Gly Asn Trp Gly His Leu  
 195 200 205

Asp Gln Val Ala Ala Leu Arg Trp Val Gln Asp Asn Ile Ala Ser Phe  
 210 215 220

Gly Gly Asn Pro Gly Ser Val Thr Ile Phe Gly Glu Ser Ala Gly Gly  
 225 230 235 240

Glu Ser Val Ser Val Leu Val Leu Ser Pro Leu Ala Lys Asn Leu Phe  
 245 250 255

His Arg Ala Ile Ser Glu Ser Gly Val Ala Leu Thr Ser Val Leu Val  
 260 265 270

Lys Lys Gly Asp Val Lys Pro Leu Ala Glu Gln Ile Ala Ile Thr Ala  
 275 280 285



Gly	Cys	Lys	Thr	Thr	Thr	Ser	Ala	Val	Met	Val	His	Cys	Leu	Arg	Gln	290	295	300
Lys	Thr	Glu	Glu	Glu	Leu	Leu	Glu	Thr	Thr	Leu	Lys	Met	Lys	Phe	Leu	305	310	315
Ser	Leu	Asp	Leu	Gln	Gly	Asp	Pro	Arg	Glu	Ser	Gln	Pro	Leu	Leu	Gly	325	330	335
Thr	Val	Ile	Asp	Gly	Met	Leu	Leu	Leu	Lys	Thr	Pro	Glu	Glu	Leu	Gln	340	345	350
Ala	Glu	Arg	Asn	Phe	His	Thr	Val	Pro	Tyr	Met	Val	Gly	Ile	Asn	Lys	355	360	365
Gln	Glu	Phe	Gly	Trp	Leu	Ile	Pro	Met	Gln	Leu	Met	Ser	Tyr	Pro	Leu	370	375	380
Ser	Glu	Gly	Gln	Leu	Asp	Gln	Lys	Thr	Ala	Met	Ser	Leu	Leu	Trp	Lys	385	390	395
Ser	Tyr	Pro	Leu	Val	Cys	Ile	Ala	Lys	Glu	Leu	Ile	Pro	Glu	Ala	Thr	405	410	415
Glu	Lys	Tyr	Leu	Gly	Gly	Thr	Asp	Asp	Thr	Val	Lys	Lys	Lys	Asp	Leu	420	425	430
Phe	Leu	Asp	Leu	Ile	Ala	Asp	Val	Met	Phe	Gly	Val	Pro	Ser	Val	Ile	435	440	445
Val	Ala	Arg	Asn	His	Arg	Asp	Ala	Gly	Ala	Pro	Thr	Tyr	Met	Tyr	Glu	450	455	460
Phe	Gln	Tyr	Arg	Pro	Ser	Phe	Ser	Ser	Asp	Met	Lys	Pro	Lys	Thr	Val	465	470	475
Ile	Gly	Asp	His	Gly	Asp	Glu	Leu	Phe	Ser	Val	Phe	Gly	Ala	Pro	Phe	485	490	495
Leu	Lys	Glu	Gly	Ala	Ser	Glu	Glu	Glu	Ile	Arg	Leu	Ser	Lys	Met	Val	500	505	510
Met	Lys	Phe	Trp	Ala	Asn	Phe	Ala	Arg	Asn	Gly	Asn	Pro	Asn	Gly	Glu	515	520	525
Gly	Leu	Pro	His	Trp	Pro	Glu	Tyr	Asn	Gln	Lys	Glu	Gly	Tyr	Leu	Gln	530	535	540
Ile	Gly	Ala	Asn	Thr	Gln	Ala	Ala	Gln	Lys	Leu	Lys	Asp	Lys	Glu	Val	545	550	555
																		560

1194

Ala Phe Trp Thr Asn Leu Phe Ala Lys Lys Ala Val Glu Lys Pro Pro  
                   565                  570                  575

Gln Thr Glu His Ile Glu Leu  
                   580

&lt;210&gt; 1178

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1178

Pro Gly Arg Xaa Gln Leu Arg Ala Lys Phe Ser Cys Pro Pro Ala Asp  
   1                  5                  10                  15

Arg Val Asn Val Thr Val Arg Pro Gly Leu Ala Met Ala Leu Ser Gly  
                   20                  25                  30

Ser Thr Glu Pro Cys Ala Gln Leu Ser Ile Ser Ser Ile Gly Val Val  
                   35                  40                  45

Gly Thr Ala Glu Asp Asn Arg Ser His Ser Ala His Phe Phe Glu Phe  
                   50                  55                  60

Leu Thr Lys Glu Leu Ala Leu Gly Gln Asp Arg Ile Leu Ile Arg Phe  
   65                  70                  75                  80

Phe Pro Leu Glu Ser Trp Gln Ile Gly Lys Ile Gly Thr Val Met Thr  
                   85                  90                  95

Phe Leu

&lt;210&gt; 1179

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1195

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1179

Phe Arg Pro Ala Val Ser Xaa Gly Ser Leu Cys Leu Pro Ala Arg Thr  
 1 5 10 15

Ala His Ser Pro Ala Ser Ser Ala Ala Cys Arg Thr Met Ala Gln Gly  
 20 25 30

Gln Arg Lys Phe Gln Ala His Lys Pro Ala Lys Ser Lys Thr Ala Ala  
 35 40 45

Ala Xaa Ser Glu Lys Asn Arg Gly Pro Arg Lys Gly Gly Arg Val Ile  
 50 55 60

Ala Pro Xaa Lys Ala Arg Val Val Gln Gln Gln Lys Leu Lys Lys Asn  
 65 70 75 80

Leu Glu Val Gly Ile Arg Lys Lys Ile Glu His Asp Val Val Met Lys  
 85 90 95

Ala Ser Ser Ser Leu Pro Lys Lys Leu Ala Leu Leu Lys Ala Pro Ala  
 100 105 110

Lys Lys Lys Gly Ala Ala Ala Ala Thr Ser Ser Lys Thr Pro Ser  
 115 120 125

&lt;210&gt; 1180

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1180

Ser Ser Tyr Arg Ser Lys Ala Tyr Thr His Thr Lys Ile Thr Val Pro  
 1 5 10 15

Arg Glu Arg Val Cys Val Ser Val Arg Val Ser Val Cys Ala Arg Ala  
 20 25 30

Arg Ser Trp Pro Asn Val Arg Thr Leu His Lys Gly Gly Arg Ser Ser

1196

35	40	45
Tyr Arg Leu Phe Asn Val Arg Glu Thr Ile Phe Leu Leu Phe Gln Leu		
50	55	60
Tyr Gln Ile Leu Val Pro Gln His Arg Asn Asp Ser Glu Ser Gln Thr		
65	70	75 80
Lys Cys Ile Ile Cys Ser Ile Leu Ile Leu Leu Leu His Ser		
85	90	

<210> 1181  
 <211> 353  
 <212> PRT  
 <213> Homo sapiens

<400> 1181  
 Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser  
 1 5 10 15  
 Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser  
 20 25 30  
 Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly  
 35 40 45  
 Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala  
 50 55 60  
 Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn  
 65 70 75 80  
 Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys  
 85 90 95  
 Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr  
 100 105 110  
 Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala  
 115 120 125  
 Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr  
 130 135 140  
 Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr  
 145 150 155 160  
 Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu  
 165 170 175

1197

Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe  
 180 185 190  
 Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro  
 195 200 205  
 Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu  
 210 215 220  
 Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro  
 225 230 235 240  
 Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu  
 245 250 255  
 Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser  
 260 265 270  
 Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys  
 275 280 285  
 Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val  
 290 295 300  
 Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu  
 305 310 315 320  
 Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys  
 325 330 335  
 Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro  
 340 345 350

Tyr

&lt;210&gt; 1182

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1182

Ala Arg Asp Ser Leu Gln Leu Ser Met Ala Gln Thr Ser Ser Tyr Phe  
 1 5 10 15  
 Met Leu Ile Ser Cys Leu Met Phe Leu Ser Gln Ser Gln Gly Gln Glu  
 20 25 30

1198

Ala Gln Thr Glu Leu Pro Gln Ala Arg Ile Ser Cys Pro Glu Gly Thr  
           35                          40                          45  
 Asn Ala Tyr Arg Ser Tyr Cys Tyr Tyr Phe Asn Glu Asp Arg Glu Thr  
       50                          55                          60  
 Trp Val Asp Ala Asp Leu Tyr Cys Gln Asn Met Asn Ser Gly Asn Leu  
       65                          70                          75                          80  
 Val Ser Val Leu Thr Gln Ala Glu Gly Ala Phe Val Ala Ser Leu Ile  
                           85                          90                          95  
 Lys Glu Ser Gly Thr Asp Asp Phe Asn Val Trp Ile Gly Leu His Asp  
           100                          105                          110  
 Pro Lys Lys Asn Arg Arg Trp His Trp Ser Ser Gly Ser Leu Val Ser  
       115                          120                          125  
 Tyr Lys Ser Trp Gly Ile Gly Ala Pro Ser Ser Val Asn Pro Gly Tyr  
       130                          135                          140  
 Cys Val Ser Leu Thr Ser Ser Thr Gly Phe Gln Lys Trp Lys Asp Val  
       145                          150                          155                          160  
 Pro Cys Glu Asp Lys Phe Ser Phe Val Cys Lys Phe Lys Asn  
                           165                          170

&lt;210&gt; 1183

&lt;211&gt; 342

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (187)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1199

&lt;222&gt; (302)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (308)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1183

Ser Ile Phe Ser Tyr Ile Arg Leu Glu Leu Pro Ser Met Trp Leu Leu

1

5

10

15

Val Ser Val Ile Leu Ile Ser Arg Ile Ser Ser Val Gly Gly Glu Ala

20

25

30

Thr Phe Cys Asp Phe Pro Lys Ile Asn His Gly Ile Leu Tyr Asp Glu

35

40

45

Glu Lys Tyr Lys Pro Phe Ser Gln Val Pro Thr Gly Glu Val Phe Tyr

50

55

60

Tyr Ser Cys Glu Tyr Asn Phe Val Ser Pro Ser Lys Ser Phe Trp Thr

65

70

75

80

Arg Ile Thr Cys Thr Glu Glu Gly Trp Ser Pro Thr Pro Lys Cys Leu

85

90

95

Arg Leu Cys Phe Phe Pro Phe Val Glu Asn Gly His Ser Glu Ser Ser

100

105

110

Gly Gln Thr His Leu Glu Gly Asp Thr Val Gln Ile Ile Cys Asn Thr

115

120

125

Gly Tyr Arg Leu Gln Asn Asn Glu Asn Asn Ile Ser Cys Val Glu Arg

130

135

140

Gly Trp Ser Thr Pro Pro Lys Cys Arg Ser Thr Asp Thr Ser Cys Val

145

150

155

160

Asn Pro Pro Thr Val Gln Asn Ala Xaa Ile Xaa Ser Arg Gln Met Ser

165

170

175

Lys Tyr Pro Ser Gly Glu Arg Val Arg Tyr Xaa Cys Arg Ser Pro Tyr

180

185

190

Glu Met Phe Gly Asp Glu Glu Val Met Cys Leu Asn Gly Asn Trp Thr

195

200

205

Glu Pro Pro Gln Cys Lys Asp Ser Thr Gly Lys Cys Gly Pro Pro Pro

210

215

220

1200

Pro Ile Asp Asn Gly Asp Ile Thr Ser Phe Pro Leu Ser Val Tyr Ala  
225 230 235 240

Pro Ala Ser Ser Val Glu Tyr Gln Cys Gln Asn Leu Tyr Gln Leu Glu  
245 250 255

Gly Asn Lys Arg Ile Thr Cys Arg Asn Gly Gln Trp Ser Glu Pro Pro  
260 265 270

Lys Cys Leu His Pro Cys Val Ile Ser Arg Glu Ile Met Glu Asn Tyr  
275 280 285

Asn Ile Ala Leu Arg Trp Thr Ala Lys Gln Lys Leu Tyr Xaa Arg Thr  
290 295 300

Gly Glu Ser Xaa Glu Phe Val Cys Lys Arg Gly Tyr Arg Leu Ser Ser  
305 310 315 320

Arg Ser His Thr Leu Arg Thr Thr Cys Trp Asp Gly Lys Leu Glu Tyr  
325 330 335

Pro Thr Cys Ala Lys Arg  
340

<210> 1184

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1184

Pro Xaa Arg Pro Arg Gly Ala Ala Ala Ala Ala Ala Ala Gly Ala  
1 5 10 15

Ala Met Pro Lys Gly Gly Arg Lys Gly Gly His Lys Gly Arg Ala Arg  
20 25 30

Gln Tyr Thr Ser Pro Glu Glu Ile Asp Ala Gln Leu Gln Ala Glu Lys  
35 40 45



1201

Gln Lys Ala Arg Glu Glu Glu Glu Gln Lys Glu Gly Gly Asp Gly Ala  
 50 55 60  
 Ala Gly Asp Pro Lys Lys Glu Lys Lys Ser Leu Asp Ser Asp Glu Ser  
 65 70 75 80  
 Glu Asp Glu Glu Asp Asp Tyr Gln Gln Lys Arg Lys Gly Val Glu Gly  
 85 90 95  
 Leu Ile Asp Ile Glu Asn Pro Asn Arg Val Ala Gln Thr Thr Lys Lys  
 100 105 110  
 Val Thr Gln Leu Asp Leu Asp Gly Pro Lys Glu Leu Ser Arg Arg Glu  
 115 120 125  
 Arg Glu Glu Ile Glu Lys Gln Lys Ala Lys Glu Arg Tyr Met Lys Met  
 130 135 140  
 His Leu Ala Gly Lys Thr Glu Gln Ala Lys Ala Asp Leu Ala Arg Leu  
 145 150 155 160  
 Xaa Ile Ile Arg Lys Gln Arg Glu Glu Ala Ala Arg Lys Lys Glu Glu  
 165 170 175  
 Glu Arg Lys Ala Lys Asp Asp Ala Thr Leu Ser Gly Lys Arg Met Gln  
 180 185 190  
 Ser Leu Ser Leu Asn Lys  
 195

&lt;210&gt; 1185

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1185

Ala His Ala Ser Ala His Ala Ser Gly Met Asp Leu Ser Leu Leu Trp  
 1 5 10 15  
 Val Leu Leu Pro Leu Val Thr Met Ala Trp Gly Gln Tyr Gly Asp Tyr  
 20 25 30  
 Gly Tyr Pro Tyr Gln Gln Tyr His Asp Tyr Ser Asp Asp Gly Trp Val  
 35 40 45  
 Asn Leu Asn Arg Gln Gly Phe Ser Tyr Gln Cys Pro Gln Gly Gln Val  
 50 55 60  
 Ile Val Ala Val Arg Ser Ile Phe Ser Lys Lys Glu Gly Ser Asp Arg

1202

65					70						75				80
Gln	Trp	Asn	Tyr	Ala	Cys	Met	Pro	Thr	Pro	Gln	Ser	Leu	Gly	Glu	Pro
				85					90					95	
Thr	Glu	Cys	Trp	Trp	Glu	Glu	Ile	Asn	Arg	Ala	Gly	Met	Glu	Trp	Tyr
			100					105					110		
Gln	Thr	Cys	Ser	Asn	Asn	Gly	Leu	Val	Ala	Gly	Phe	Gln	Ser	Arg	Tyr
		115					120					125			
Phe	Glu	Ser	Val	Leu	Asp	Arg	Glu	Trp	Gln	Phe	Tyr	Cys	Cys	Arg	Tyr
	130					135					140				
Ser	Lys	Arg	Cys	Pro	Tyr	Ser	Cys	Trp	Leu	Thr	Thr	Glu	Tyr	Pro	Gly
145					150					155					160
His	Tyr	Gly	Glu	Glu	Met	Asp	Met	Ile	Ser	Tyr	Asn	Tyr	Asp	Tyr	Tyr
				165					170					175	
Ile	Arg	Gly	Ala	Thr	Thr	Thr	Phe	Ser	Ala	Val	Glu	Arg	Asp	Arg	Gln
			180					185					190		
Trp	Lys	Phe	Ile	Met	Cys	Arg	Met	Thr	Glu	Tyr	Asp	Cys	Glu	Phe	Ala
		195					200					205			
Asn	Val														
	210														

&lt;210&gt; 1186

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1186

Arg	Ala	Ile	Tyr	Phe	Leu	Arg	Val	His	Arg	Leu	Trp	Ser	Ser	Ile	Ser
1					5				10					15	
Leu	Leu	Phe	Phe	Pro	Ser	Ala	Lys	Met	Ala	Leu	Glu	Thr	Val	Pro	Lys
			20					25					30		
Asp	Leu	Arg	His	Leu	Arg	Ala	Cys	Leu	Leu	Cys	Ser	Leu	Val	Lys	Thr
		35					40					45			
Ile	Asp	Gln	Phe	Glu	Tyr	Asp	Gly	Cys	Asp	Asn	Cys	Asp	Ala	Tyr	Leu
	50					55					60				
Gln	Met	Lys	Gly	Asn	Arg	Glu	Met	Val	Tyr	Asp	Cys	Thr	Ser	Ser	Ser
65					70					75					80

Phe	Asp	Gly	Ile	Ile	Ala	Met	Met	Ser	Pro	Glu	Asp	Ser	Trp	Val	Ser
				85					90					95	
Lys	Trp	Gln	Arg	Val	Ser	Asn	Phe	Lys	Pro	Gly	Val	Tyr	Ala	Val	Ser
			100					105					110		
Val	Thr	Gly	Arg	Leu	Pro	Gln	Gly	Ile	Val	Arg	Glu	Leu	Lys	Ser	Arg
		115					120					125			
Gly	Val	Ala	Tyr	Lys	Ser	Arg	Asp	Thr	Ala	Ile	Lys	Thr			
	130					135					140				

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

Lys Xaa Gly Phe Ser Lys Gly Leu Gly Xaa Asp Ser  
65 70 75

1204

&lt;210&gt; 1188

&lt;211&gt; 516

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1188

Ile Arg Ile Ala Ala Leu Asp Asp Phe Arg Thr Ser Leu Thr Met Ser  
 1 5 10 15

Ser Thr Arg Ser Gln Asn Pro His Gly Leu Lys Gln Ile Gly Leu Asp  
 20 25 30

Gln Ile Trp Asp Asp Leu Arg Ala Gly Ile Gln Gln Val Tyr Thr Arg  
 35 40 45

Gln Ser Met Ala Lys Ser Arg Tyr Met Glu Leu Tyr Thr His Val Tyr  
 50 55 60

Asn Tyr Cys Thr Ser Val His Gln Ser Asn Gln Ala Arg Gly Ala Gly  
 65 70 75 80

Val Pro Pro Ser Lys Ser Lys Lys Gly Gln Thr Pro Gly Gly Ala Gln  
 85 90 95

Phe Val Gly Leu Glu Leu Tyr Lys Arg Leu Lys Glu Phe Leu Lys Asn  
 100 105 110

Tyr Leu Thr Asn Leu Leu Lys Asp Gly Glu Asp Leu Met Asp Glu Ser  
 115 120 125

Val Leu Lys Phe Tyr Thr Gln Gln Trp Glu Asp Tyr Arg Phe Ser Ser  
 130 135 140

Lys Val Leu Asn Gly Ile Cys Ala Tyr Leu Asn Arg His Trp Val Arg  
 145 150 155 160

Arg Glu Cys Asp Glu Gly Arg Lys Gly Ile Tyr Glu Ile Tyr Ser Leu  
 165 170 175

Ala Leu Val Thr Trp Arg Asp Cys Leu Phe Arg Pro Leu Asn Lys Gln  
 180 185 190

Val Thr Asn Ala Val Leu Lys Leu Ile Glu Lys Glu Arg Asn Gly Glu  
 195 200 205

Thr Ile Asn Thr Arg Leu Ile Ser Gly Val Val Gln Ser Tyr Val Glu  
 210 215 220

Leu Gly Leu Asn Glu Asp Asp Ala Phe Ala Lys Gly Pro Thr Leu Thr

1205

225		230		235		240
Val Tyr Lys Glu Ser Phe Glu Ser Gln Phe Leu Ala Asp Thr Glu Arg						
		245		250		255
Phe Tyr Thr Arg Glu Ser Thr Glu Phe Leu Gln Gln Asn Pro Val Thr						
		260		265		270
Glu Tyr Met Lys Lys Ala Glu Ala Arg Leu Leu Glu Glu Gln Arg Arg						
		275		280		285
Val Gln Val Tyr Leu His Glu Ser Thr Gln Asp Glu Leu Ala Arg Lys						
		290		295		300
Cys Glu Gln Val Leu Ile Glu Lys His Leu Glu Ile Phe His Thr Glu						
		305		310		315
Phe Gln Asn Leu Leu Asp Ala Asp Lys Asn Glu Asp Leu Gly Arg Met						
		325		330		335
Tyr Asn Leu Val Ser Arg Ile Gln Asp Gly Leu Gly Glu Leu Lys Lys						
		340		345		350
Leu Leu Glu Thr His Ile His Asn Gln Gly Leu Ala Ala Ile Glu Lys						
		355		360		365
Cys Gly Glu Ala Ala Leu Asn Asp Pro Lys Met Tyr Val Gln Thr Val						
		370		375		380
Leu Asp Val His Lys Lys Tyr Asn Ala Leu Val Met Ser Ala Phe Asn						
		385		390		395
Asn Asp Ala Gly Phe Val Ala Ala Leu Asp Lys Ala Cys Gly Arg Phe						
		405		410		415
Ile Asn Asn Asn Ala Val Thr Lys Met Ala Gln Ser Ser Ser Lys Ser						
		420		425		430
Pro Glu Leu Leu Ala Arg Tyr Cys Asp Ser Leu Leu Lys Lys Ser Ser						
		435		440		445
Lys Asn Pro Glu Glu Ala Glu Leu Glu Asp Thr Leu Asn Gln Val Met						
		450		455		460
Val Val Phe Lys Tyr Ile Glu Asp Lys Asp Val Phe Gln Lys Phe Tyr						
		465		470		475
Ala Lys Met Leu Ala Lys Arg Leu Val His Gln Asn Ser Ala Ser Asp						
		485		490		495
Asp Ala Glu Ala Ser Met Ile Ser Lys Leu Lys Gln Ala Cys Gly Phe						

1206

500

505

510

Glu Tyr Thr Ser

515

&lt;210&gt; 1189

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (254)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (274)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1207

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (275)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (280)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1189

Met	Ser	Tyr	Cys	Asp	Glu	Ser	Arg	Leu	Ser	Asn	Leu	Leu	Arg	Arg	Ile
1				5				10					15		

Thr	Arg	Glu	Xaa	Asp	Arg	Asp	Xaa	Arg	Leu	Xaa	Thr	Val	Lys	Gln	Leu
		20						25					30		

Lys	Glu	Phe	Ile	Gln	Gln	Pro	Glu	Asn	Lys	Leu	Val	Leu	Val	Lys	Gln
		35					40					45			

Leu	Asp	Ile	Leu	Ala	Ala	Xaa	His	Asp	Val	Leu	Asn	Glu	Ser	Ser	Lys
	50					55					60				

Leu	Leu	Gln	Glu	Leu	Arg	Gln	Glu	Gly	Ala	Cys	Cys	Leu	Gly	Leu	Leu
65					70					75					80

Cys	Ala	Ser	Leu	Ser	Tyr	Glu	Ala	Glu	Lys	Ile	Phe	Lys	Trp	Ile	Phe
			85						90					95	

Ser	Lys	Phe	Ser	Ser	Ser	Ala	Lys	Asp	Glu	Val	Lys	Leu	Leu	Tyr	Leu
			100					105					110		

Cys	Ala	Thr	Tyr	Lys	Ala	Leu	Glu	Thr	Val	Gly	Glu	Lys	Lys	Ala	Phe
		115					120					125			

Ser	Ser	Val	Met	Gln	Leu	Val	Met	Thr	Ser	Leu	Gln	Ser	Ile	Leu	Glu
		130				135					140				

Asn	Val	Asp	Thr	Pro	Glu	Leu	Leu	Cys	Lys	Cys	Val	Lys	Cys	Ile	Leu
145					150					155					160

Leu	Val	Ala	Arg	Cys	Tyr	Pro	His	Ile	Phe	Ser	Xaa	Asn	Phe	Arg	Asp
				165					170					175	

Thr	Val	Asp	Ile	Leu	Val	Gly	Trp	His	Arg	Asp	His	Thr	Gln	Lys	Pro
				180					185				190		

Ser	Leu	Thr	Gln	Gln	Val	Ser	Gly	Trp	Leu	Gln	Ser	Leu	Glu	Pro	Phe
							200					205			

1208

Trp Val Ala Asp Leu Ala Phe Pro Thr Thr Leu Leu Gly Gln Phe Leu  
 210 215 220

Glu Asp Met Glu Ala Tyr Ala Glu Asp Leu Ser His Val Ala Ser Gly  
 225 230 235 240

Glu Ser Val Asp Glu Asp Val Pro Pro Pro Ser Val Ser Xaa Pro Lys  
 245 250 255

Leu Ala Ala Leu Leu Arg Val Phe Ser Thr Val Val Arg Ser Xaa Gly  
 260 265 270

Glu Xaa Xaa Ser Pro Ile Arg Xaa Leu Gln Leu Leu Arg His Thr  
 275 280 285

<210> 1190

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1190

Arg Pro Pro Ser Arg Trp Ser Trp Trp Gln Gly Lys Pro Thr Gly Gly  
 1 5 10 15

Val Cys Val Ala Ala Ala Arg Ser Ser Pro Ser Val Thr Ala Pro Thr  
 20 25 30

Ser Ser Asn Ala Leu Ala Tyr Leu His Ser Ser Ser Arg Pro Lys Arg  
 35 40 45

Pro Ala Trp Trp His Ser Val Pro Ala Arg Pro Leu Arg Gly Pro Arg  
 50 55 60

Thr Ala Met Ala Pro Thr Gly Val Ser Ala Cys Arg Arg Gln Lys Trp  
 65 70 75 80

Ala Pro His Ser Glu Gly Ala Ala Ala Val Gln Pro Gln Val Ala Leu  
 85 90 95

Ala Pro Gly Leu  
 100

<210> 1191

<211> 115

<212> PRT

<213> Homo sapiens



1209

&lt;400&gt; 1191

Asn Asp Val Ile His Gln Tyr Val Tyr Met Tyr Phe Tyr Ile Asp Leu  
 1 5 10 15

Glu Asn Thr Ala Lys Thr Phe Met Thr Ser Cys Ile Thr Ala Phe Val  
 20 25 30

Tyr Ile Phe Leu Thr Val Ile Ile Pro Thr Gly Thr Leu Thr Val Ala  
 35 40 45

Leu Leu Asn Val Gln Asn Leu Tyr Phe Arg Asn Asn Lys Lys Lys Asp  
 50 55 60

Thr Tyr Met Phe Pro Lys Gln Trp Cys Gly Glu Cys Val Arg Lys Thr  
 65 70 75 80

Asn Leu Ile Gly Ser Thr Asn Thr Lys Cys Ile Thr Asn Ala Pro Val  
 85 90 95

His Val Phe Val Leu Lys Arg Val Asn Glu Asp Leu Tyr Ile Ser Ile  
 100 105 110

Asn Asp Ile  
 115

&lt;210&gt; 1192

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1192

Arg Ile Pro Pro Glu Ser Leu Ala Arg Glu Xaa Arg Xaa Thr Lys Ser  
 1 5 10 15

Phe Ser Asn Pro Arg Arg Pro Asp Arg Gly Thr Trp Ser Leu Ser Glu  
 20 25 30

Lys Phe Asn Leu Arg Asp Lys Met Gln Trp Thr Ser Leu Leu Leu  
 35 40 45

1210

Ala	Gly	Leu	Phe	Ser	Leu	Ser	Gln	Ala	Gln	Tyr	Glu	Asp	Asp	Pro	His	50	55	60
Trp	Trp	Phe	His	Tyr	Leu	Arg	Ser	Gln	Gln	Ser	Thr	Tyr	Tyr	Asp	Pro	65	70	75
Tyr	Asp	Pro	Tyr	Pro	Tyr	Glu	Thr	Tyr	Glu	Pro	Tyr	Pro	Tyr	Gly	Val	85	90	95
Asp	Glu	Gly	Pro	Ala	Tyr	Thr	Tyr	Gly	Ser	Pro	Ser	Pro	Pro	Asp	Pro	100	105	110
Arg	Asp	Cys	Pro	Gln	Glu	Cys	Asp	Cys	Pro	Pro	Asn	Phe	Pro	Thr	Ala	115	120	125
Met	Tyr	Cys	Asp	Asn	Arg	Asn	Leu	Lys	Tyr	Leu	Pro	Phe	Val	Pro	Ser	130	135	140
Arg	Met	Lys	Tyr	Val	Tyr	Phe	Gln	Asn	Asn	Gln	Ile	Thr	Ser	Ile	Gln	145	150	155
Glu	Gly	Val	Phe	Asp	Asn	Ala	Thr	Gly	Leu	Leu	Trp	Ile	Ala	Leu	His	165	170	175
Gly	Asn	Gln	Ile	Thr	Ser	Asp	Lys	Val	Gly	Arg	Lys	Val	Phe	Ser	Lys	180	185	190
Leu	Arg	His	Leu	Glu	Arg	Leu	Tyr	Leu	Asp	His	Asn	Asn	Leu	Thr	Arg	195	200	205
Met	Pro	Gly	Pro	Leu	Pro	Arg	Ser	Leu	Arg	Glu	Leu	His	Leu	Asp	His	210	215	220
Asn	Gln	Ile	Ser	Arg	Val	Pro	Asn	Asn	Ala	Leu	Glu	Gly	Leu	Glu	Asn	225	230	235
Leu	Thr	Ala	Leu	Tyr	Leu	Gln	His	Asn	Glu	Ile	Gln	Glu	Val	Gly	Ser	245	250	255
Ser	Met	Arg	Gly	Leu	Arg	Ser	Leu	Ile	Leu	Leu	Asp	Leu	Ser	Tyr	Asn	260	265	270
His	Leu	Arg	Lys	Val	Pro	Asp	Gly	Leu	Pro	Ser	Ala	Leu	Glu	Gln	Leu	275	280	285
Tyr	Met	Glu	His	Asn	Asn	Val	Tyr	Thr	Val	Pro	Asp	Ser	Tyr	Phe	Arg	290	295	300
Gly	Ala	Pro	Lys	Leu	Leu	Tyr	Val	Arg	Leu	Ser	His	Asn	Ser	Leu	Thr	305	310	315

1211

Asn Asn Gly Leu Ala Ser Asn Thr Phe Asn Ser Ser Ser Leu Leu Glu  
                             325                            330                            335  
 Leu Asp Leu Ser Tyr Asn Gln Leu Gln Lys Ile Pro Pro Val Asn Thr  
                             340                            345                            350  
 Asn Leu Glu Asn Leu Tyr Leu Gln Gly Asn Arg Ile Asn Glu Phe Ser  
                             355                            360                            365  
 Ile Ser Ser Phe Cys Thr Val Val Asp Val Val Asn Phe Ser Lys Leu  
                             370                            375                            380  
 Gln Val Leu Arg Leu Asp Gly Asn Glu Ile Lys Arg Ser Ala Met Pro  
                             385                            390                            395                            400  
 Ala Asp Ala Pro Leu Cys Leu Arg Leu Ala Ser Leu Ile Glu Ile  
                             405                            410                            415

&lt;210&gt; 1193

&lt;211&gt; 620

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (375)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (501)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (532)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (546)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1193

Ser Ala Val Thr Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp  
     1                            5                            10                            15

Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val

20

30

Phe His Ser Asp Gln Ser Tyr Thr Asp Thr Gly Phe Leu Ala Glu Tyr

1213

290		295		300
Leu. Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg				
305		310		320
Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp				
	325		330	335
Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His				
	340		345	350
Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys				
	355		360	365
Asp Ser Val Asn Asp Cys Xaa Asp Asn Ser Asp Glu Gln Gly Cys Ser				
	370		375	380
Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys				
	385		390	395
Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu				
	405		410	415
Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr				
	420		425	430
Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp				
	435		440	445
Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys				
	450		455	460
Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp				
	465		470	475
Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly				
	485		490	495
Gln Gly Thr Ser Xaa Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val				
	500		505	510
Ser Ala Ala His Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp				
	515		520	525
Pro Thr Gln Xaa Thr Ala Phe Leu Gly Leu His Asp Gln Ser Gln Arg				
	530		535	540
Ser Xaa Leu Gly Cys Arg Ser Ala Gly Ser Ser Ala Ser Ser Pro Thr				
	545		550	555
Pro Ser Ser Met Thr Ser Pro Ser Thr Met Thr Ser Arg Cys Trp Ser				

1214

565 570 575  
Trp Arg Asn Arg Gln Ser Thr Ala Pro Trp Cys Gly Pro Ser Ala Cys  
580 585 590  
Arg Thr Pro Pro Met Ser Ser Leu Pro Ala Arg Pro Ser Gly Ser Arg  
595 600 605  
Ala Gly Asp Thr Pro Ser Met Glu Ala Leu Ala Arg  
610 615 620

<210> 1194  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 1194  
Arg Thr Leu Cys His Leu Thr Thr Leu Asp Glu Leu Ser Cys Gln Arg  
1 5 10 15  
Glu Asn Leu Met Phe Lys Glu His Phe Pro Leu Ala Asp Val Thr Ala  
20 25 30  
Gly Phe Val Phe His Met Cys Phe Ser Tyr Thr His Leu Asn Ala Phe  
35 40 45  
Lys His Leu  
50

<210> 1195  
<211> 269  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (245)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (246)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (257)

1215

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (266)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1195

Pro Ala Glu Asp Ala Ala Ser Leu Thr Trp Gly Val Ala Ile Arg Ala  
1 5 10 15

Gly Arg Ser Trp Phe Ser Gly Pro Ala Ala Pro Ala Ala Ala Met Ser  
20 25 30

Phe Phe Pro Glu Leu Tyr Phe Asn Val Asp Asn Gly Tyr Leu Glu Gly  
35 40 45

Leu Val Arg Gly Leu Lys Ala Gly Val Leu Ser Gln Ala Asp Tyr Leu  
50 55 60

Asn Leu Val Gln Cys Glu Thr Leu Glu Asp Leu Lys Leu His Leu Gln  
65 70 75 80

Ser Thr Asp Tyr Gly Asn Phe Leu Ala Asn Glu Ala Ser Pro Leu Thr  
85 90 95

Val Ser Val Ile Asp Asp Arg Leu Lys Glu Lys Met Val Val Glu Phe  
100 105 110

Arg His Met Arg Asn His Ala Tyr Glu Pro Leu Ala Ser Phe Leu Asp  
115 120 125

Phe Ile Thr Tyr Ser Tyr Met Ile Asp Asn Val Ile Leu Leu Ile Thr  
130 135 140

Gly Thr Leu His Gln Arg Ser Ile Ala Glu Leu Val Pro Lys Cys His  
145 150 155 160

Pro Leu Gly Ser Phe Glu Gln Met Glu Ala Val Asn Ile Ala Gln Thr  
165 170 175

Pro Ala Glu Leu Tyr Asn Ala Ile Leu Val Asp Thr Pro Leu Ala Ala  
180 185 190

Phe Phe Gln Asp Cys Ile Ser Glu Gln Asp Leu Asp Glu Met Asn Ile  
195 200 205

Glu Ile Ile Arg Asn Thr Leu Tyr Lys Ala Tyr Leu Glu Ser Phe Tyr  
210 215 220

Lys Phe Cys Thr Leu Leu Gly Gly Thr Thr Ala Asp Ala Met Cys Pro

1216

225                      230                      235                      240  
 Ile Leu Glu Phe Xaa Xaa Gln Thr Val Pro Ser Ser Phe His Thr Val  
                                  245                      250                      255  
 Xaa Gly Ser Thr Leu Arg Ala Trp Arg Xaa Gly Ser Gly  
                                  260                      265

&lt;210&gt; 1196

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1196

Arg His Glu Pro Ala Pro Arg Glu Ala Pro Gly Ser Arg Ala Ser Ala  
   1                                  5                                  10                                  15  
 Phe Leu Leu Pro Ser Phe Leu Pro Gly Pro Arg Leu Val Pro Ala Gly  
                                   20                                  25                                  30  
 His Pro Thr Ala Thr Met Phe Val Pro Cys Gly Glu Ser Ala Pro Asp  
                                   35                                  40                                  45  
 Leu Ala Gly Phe Thr Leu Leu Met Pro Ala Val Ser Val Gly Asn Val  
   50                                  55                                  60  
 Gly Gln Leu Ala Met Asp Leu Ile Ile Ser Thr Leu Asn Met Ser Lys  
   65                                  70                                  75                                  80  
 Ile Gly Tyr Phe Tyr Thr Asp Cys Leu Val Pro Met Val Gly Asn Asn  
                                   85                                  90                                  95  
 Pro Tyr Ala Thr Thr Glu Gly Asn Ser Thr Glu Leu Ser Ile Asn Ala  
                                   100                                  105                                  110  
 Glu Val Tyr Ser Leu Pro Ser Arg Lys Leu Val Ala Leu Gln Leu Arg  
                                   115                                  120                                  125  
 Ser Ile Phe Ile Lys Tyr Lys Ser Lys Pro Phe Cys Glu Lys Leu Leu  
   130                                  135                                  140  
 Ser Trp Val Lys Ser Ser Gly Cys Ala Arg Val Ile Val Leu Ser Ser  
   145                                  150                                  155                                  160  
 Ser His Ser Tyr Gln Arg Asn Asp Leu Gln Leu Arg Ser Thr Pro Phe  
                                   165                                  170                                  175  
 Arg Tyr Leu Leu Thr Pro Ser Met Gln Lys Ser Val Gln Asn Lys Ile  
                                   180                                  185                                  190



1217

Lys Ser Leu Asn Trp Glu Glu Met Glu Lys Ser Arg Cys Ile Pro Glu  
 195 200 205

Ile Asp Asp Ser Glu Phe Cys Ile Arg Ile Pro Gly Gly Gly Ile Thr  
 210 215 220

Lys Thr Leu Tyr Asp Glu Ser Cys Ser Lys Glu Ile Gln Met Ala Val  
 225 230 235 240

Leu Leu Lys Phe Val Ser Glu Gly Asp Asn Ile Pro Asp Ala Leu Gly  
 245 250 255

Leu Val Glu Tyr Leu Asn Glu Trp Leu Gln Ile Leu Lys Pro Leu Ser  
 260 265 270

Asp Asp Pro Thr Val Ser Ala Ser Arg Trp Lys Ile Pro Ser Ser Trp  
 275 280 285

Arg Leu Leu Phe Gly Ser Gly Leu Pro Pro Ala Leu Phe  
 290 295 300

<210> 1197

<211> 246

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1197

Gly Thr Arg Asp Leu Leu Leu Ala Ala Ala Ala Ala Thr Gly Lys Leu  
 1 5 10 15

Lys Ser Phe Ala Arg Lys Phe Ile Asn Leu Asn Glu Phe Thr Thr Tyr  
 20 25 30

1218

Gly Ser Glu Glu Ser Thr Lys Pro Ala Ser Val Arg Ala Leu Leu Phe  
           35                          40                          45  
 Xaa Ile Ser Phe Leu Met Leu Cys His Val Ala Gln Thr Tyr Gly Ser  
           50                          55                          60  
 Xaa Val Ile Leu Ser Glu Ser Arg Thr Gly Ala Glu Val Pro Phe Phe  
           65                          70                          75                          80  
 Glu Thr Trp Met Gln Thr Cys Met Pro Glu Glu Gly Lys Ile Leu Asn  
                           85                          90                          95  
 Pro Asp His Pro Cys Phe Arg Pro Asp Ser Thr Lys Val Glu Ser Leu  
                           100                          105                          110  
 Val Ala Leu Leu Asn Asn Ser Ser Glu Met Lys Leu Val Gln Met Lys  
           115                          120                          125  
 Trp His Glu Ala Cys Leu Ser Ile Ser Ala Ala Ile Leu Glu Ile Leu  
           130                          135                          140  
 Asn Ala Trp Glu Asn Gly Val Leu Ala Phe Glu Ser Ile Gln Lys Ile  
           145                          150                          155                          160  
 Thr Asp Asn Ile Lys Gly Lys Val Cys Ser Leu Ala Val Cys Ala Val  
                           165                          170                          175  
 Ala Trp Leu Val Ala His Val Arg Met Leu Gly Leu Asp Glu Arg Glu  
                           180                          185                          190  
 Lys Ser Leu Gln Met Ile Arg Gln Leu Ala Gly Pro Leu Phe Ser Glu  
           195                          200                          205  
 Asn Thr Leu Gln Phe Tyr Asn Glu Arg Val Val Ile Met Asn Ser Ile  
           210                          215                          220  
 Leu Gly Ala His Val Xaa Arg Arg Ala Ala Ala Asp Ser His Ala Gly  
           225                          230                          235                          240  
 Phe Lys Phe Pro Ser Asn  
                           245

&lt;210&gt; 1198

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1219

&lt;222&gt; (203)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (461)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1198

Lys	Asn	Met	Glu	Thr	Glu	Gln	Pro	Glu	Glu	Thr	Phe	Pro	Asn	Thr	Glu
1				5				10					15		

Thr	Asn	Gly	Glu	Phe	Gly	Lys	Arg	Pro	Ala	Glu	Asp	Met	Glu	Glu	Glu
		20						25					30		

Gln	Ala	Phe	Lys	Arg	Ser	Arg	Asn	Thr	Asp	Glu	Met	Val	Glu	Leu	Arg
	35						40					45			

Ile	Leu	Leu	Gln	Ser	Lys	Asn	Ala	Gly	Ala	Val	Ile	Gly	Lys	Gly	Gly
50						55					60				

Lys	Asn	Ile	Lys	Ala	Leu	Arg	Thr	Asp	Tyr	Asn	Ala	Ser	Val	Ser	Val
65					70					75					80

Pro	Asp	Ser	Ser	Gly	Pro	Glu	Arg	Ile	Leu	Ser	Ile	Ser	Ala	Asp	Ile
			85						90					95	

Glu	Thr	Ile	Gly	Glu	Ile	Leu	Lys	Lys	Ile	Ile	Pro	Thr	Leu	Glu	Glu
		100						105					110		

Gly	Leu	Gln	Leu	Pro	Ser	Pro	Thr	Ala	Thr	Ser	Gln	Leu	Pro	Leu	Glu
	115						120					125			

Ser	Asp	Ala	Val	Glu	Cys	Leu	Asn	Tyr	Gln	His	Tyr	Lys	Gly	Ser	Asp
	130					135					140				

Phe	Asp	Cys	Glu	Leu	Arg	Leu	Leu	Ile	His	Gln	Ser	Leu	Ala	Gly	Gly
145					150					155					160

Ile	Ile	Gly	Val	Lys	Gly	Ala	Lys	Ile	Lys	Glu	Leu	Arg	Glu	Asn	Thr
			165						170					175	

Gln	Thr	Thr	Ile	Lys	Leu	Phe	Gln	Glu	Cys	Cys	Pro	His	Ser	Thr	Asp
		180						185					190		

Arg	Val	Val	Leu	Ile	Gly	Gly	Lys	Pro	Asp	Xaa	Val	Val	Glu	Cys	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1220

195					200					205					
Lys	Ile	Ile	Leu	Asp	Leu	Ile	Ser	Glu	Ser	Pro	Ile	Lys	Gly	Arg	Ala
210						215					220				
Gln	Pro	Tyr	Asp	Pro	Asn	Phe	Tyr	Asp	Glu	Thr	Tyr	Asp	Tyr	Gly	Gly
225					230					235					240
Phe	Thr	Met	Met	Phe	Asp	Asp	Arg	Arg	Gly	Arg	Pro	Val	Gly	Phe	Pro
				245					250					255	
Met	Arg	Gly	Arg	Gly	Gly	Phe	Asp	Arg	Met	Pro	Pro	Gly	Arg	Gly	Gly
		260						265					270		
Arg	Pro	Met	Pro	Pro	Ser	Arg	Arg	Asp	Tyr	Asp	Asp	Met	Ser	Pro	Arg
		275					280					285			
Arg	Gly	Pro	Pro	Pro	Pro	Pro	Pro	Gly	Arg	Gly	Gly	Arg	Gly	Gly	Ser
	290					295					300				
Arg	Ala	Arg	Asn	Leu	Pro	Leu	Pro	Pro	Pro	Pro	Pro	Pro	Arg	Gly	Gly
305					310					315					320
Asp	Leu	Met	Ala	Tyr	Asp	Arg	Arg	Gly	Arg	Pro	Gly	Asp	Arg	Tyr	Asp
				325					330					335	
Gly	Met	Val	Gly	Phe	Ser	Ala	Asp	Glu	Thr	Trp	Asp	Ser	Ala	Ile	Asp
			340						345					350	
Thr	Trp	Ser	Pro	Ser	Glu	Trp	Gln	Met	Ala	Tyr	Glu	Pro	Gln	Gly	Gly
		355					360					365			
Ser	Gly	Tyr	Asp	Tyr	Ser	Tyr	Ala	Gly	Gly	Arg	Gly	Ser	Tyr	Gly	Asp
	370					375					380				
Leu	Gly	Gly	Pro	Ile	Ile	Thr	Thr	Gln	Val	Thr	Ile	Pro	Lys	Asp	Leu
385					390					395					400
Ala	Gly	Ser	Ile	Ile	Gly	Lys	Gly	Gly	Gln	Arg	Ile	Lys	Gln	Ile	Arg
				405					410					415	
His	Glu	Ser	Gly	Ala	Ser	Ile	Lys	Ile	Asp	Glu	Pro	Leu	Glu	Gly	Ser
			420					425					430		
Glu	Asp	Arg	Ile	Ile	Thr	Ile	Thr	Gly	Thr	Gln	Asp	Gln	Ile	Gln	Asn
	435						440					445			
Ala	Gln	Tyr	Leu	Leu	Gln	Asn	Ser	Val	Ser	Ser	Xaa	Xaa	Leu	Ala	Leu
	450					455					460				

Cys

1221

465

&lt;210&gt; 1199

&lt;211&gt; 446

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1199

Tyr	Pro	Ala	Ala	Cys	Xaa	Thr	Gly	Pro	Glu	Phe	Pro	Gly	Arg	Pro	Thr
1				5					10					15	

Arg	Pro	His	Glu	Met	Asp	Gln	Tyr	Trp	Gly	Ile	Gly	Ser	Leu	Ala	Ser
			20					25					30		

Gly	Ile	Asn	Leu	Phe	Thr	Asn	Ser	Phe	Glu	Gly	Pro	Val	Leu	Asp	His
		35					40					45			

Arg	Tyr	Tyr	Ala	Gly	Gly	Cys	Ser	Pro	His	Tyr	Ile	Leu	Asn	Thr	Arg
	50					55					60				

Phe	Arg	Lys	Pro	Tyr	Asn	Val	Glu	Ser	Tyr	Thr	Pro	Gln	Thr	Gln	Gly
65					70					75					80

Lys	Tyr	Glu	Phe	Ile	Leu	Xaa	Xaa	Tyr	Glu	Ser	Tyr	Ser	Asp	Phe	Glu
				85					90					95	

Arg	Asn	Val	Thr	Glu	Lys	Met	Ala	Ser	Lys	Ser	Gly	Phe	Ser	Phe	Gly
				100					105					110	

Phe	Lys	Ile	Pro	Gly	Ile	Phe	Glu	Leu	Gly	Ile	Ser	Ser	Gln	Ser	Asp
		115					120					125			

Arg	Gly	Lys	His	Tyr	Ile	Arg	Arg	Thr	Lys	Arg	Phe	Ser	His	Thr	Lys
		130					135					140			

1222

Ser	Val	Phe	Leu	His	Ala	Arg	Ser	Asp	Leu	Glu	Val	Ala	His	Tyr	Lys	145	150	155	160
Leu	Lys	Pro	Arg	Ser	Leu	Met	Leu	His	Tyr	Glu	Phe	Leu	Gln	Arg	Val	165	170	175	
Lys	Arg	Leu	Pro	Leu	Glu	Tyr	Ser	Tyr	Gly	Glu	Tyr	Arg	Asp	Leu	Phe	180	185	190	
Arg	Asp	Phe	Gly	Thr	His	Tyr	Ile	Thr	Glu	Ala	Val	Leu	Gly	Gly	Ile	195	200	205	
Tyr	Glu	Tyr	Thr	Leu	Val	Met	Asn	Lys	Glu	Ala	Met	Glu	Arg	Gly	Asp	210	215	220	
Tyr	Thr	Leu	Asn	Asn	Val	His	Ala	Cys	Ala	Lys	Asn	Asp	Phe	Lys	Ile	225	230	235	240
Gly	Gly	Ala	Ile	Glu	Glu	Val	Tyr	Val	Ser	Leu	Gly	Val	Ser	Val	Gly	245	250	255	
Lys	Cys	Arg	Gly	Ile	Leu	Asn	Glu	Ile	Lys	Asp	Arg	Asn	Lys	Arg	Asp	260	265	270	
Thr	Met	Val	Glu	Asp	Leu	Val	Val	Leu	Val	Arg	Gly	Gly	Ala	Ser	Glu	275	280	285	
His	Ile	Thr	Thr	Leu	Ala	Tyr	Gln	Glu	Leu	Pro	Thr	Ala	Asp	Leu	Met	290	295	300	
Gln	Glu	Trp	Gly	Asp	Ala	Val	Gln	Tyr	Asn	Pro	Ala	Ile	Ile	Lys	Val	305	310	315	320
Lys	Val	Glu	Pro	Leu	Tyr	Glu	Leu	Val	Thr	Ala	Thr	Asp	Phe	Ala	Tyr	325	330	335	
Ser	Ser	Thr	Val	Arg	Gln	Asn	Met	Lys	Gln	Ala	Leu	Glu	Glu	Phe	Gln	340	345	350	
Lys	Glu	Val	Ser	Ser	Cys	His	Cys	Ala	Pro	Cys	Gln	Gly	Asn	Gly	Val	355	360	365	
Pro	Val	Leu	Lys	Gly	Ser	Arg	Cys	Asp	Cys	Ile	Cys	Pro	Val	Gly	Ser	370	375	380	
Gln	Gly	Leu	Ala	Cys	Glu	Val	Ser	Tyr	Arg	Lys	Asn	Thr	Pro	Ile	Asp	385	390	395	400
Gly	Lys	Trp	Asn	Cys	Trp	Ser	Asn	Trp	Ser	Ser	Cys	Ser	Gly	Arg	Arg	405	410	415	

1223

Lys Thr Arg Gln Arg Gln Cys Asn Asn Pro Pro Pro Gln Asn Gly Gly  
 420 425 430

Ser Pro Cys Ser Gly Pro Ala Ser Glu Thr Leu Asp Cys Ser  
 435 440 445

&lt;210&gt; 1200

&lt;211&gt; 437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1200

Leu Gly Ser Ser Asp Ser Tyr Ala Ser Pro Gly Arg Ala Ala Ala Pro  
 1 5 10 15

Pro Ala Ala Ala Gly Pro Gly Asp Thr Ser Ala Cys Tyr Lys Ser Ser  
 20 25 30

Gly Pro Arg Cys Leu Leu Pro Asp Leu Ala Pro Ser Ser Glu Pro Gly  
 35 40 45

Ala Cys Leu Gly Gly Leu Ser Val Phe Thr Met Glu Gln Leu Ser Ser  
 50 55 60

Ala Asn Thr Arg Phe Ala Leu Asp Leu Phe Leu Ala Leu Ser Glu Asn  
 65 70 75 80

Asn Pro Ala Gly Asn Ile Phe Ile Ser Pro Phe Ser Ile Ser Ser Ala  
 85 90 95

Met Ala Met Val Phe Leu Gly Thr Arg Gly Asn Thr Ala Ala Gln Leu  
 100 105 110

Ser Lys Thr Phe His Phe Asn Thr Val Glu Glu Val His Ser Arg Phe  
 115 120 125

Gln Ser Leu Asn Ala Asp Ile Asn Lys Arg Gly Ala Ser Tyr Ile Leu  
 130 135 140

Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys Thr Tyr Asn Phe Leu Pro  
 145 150 155 160

Glu Phe Leu Val Ser Thr Gln Lys Thr Tyr Gly Ala Asp Leu Ala Ser  
 165 170 175

Val Asp Phe Gln His Ala Ser Glu Asp Ala Arg Lys Thr Ile Asn Gln  
 180 185 190

1224

Trp Val Lys Gly Gln Thr Glu Gly Lys Ile Pro Glu Leu Leu Ala Ser  
 195 200 205

Gly Met Val Asp Asn Met Thr Lys Leu Val Leu Val Asn Ala Ile Tyr  
 210 215 220

Phe Lys Gly Asn Trp Lys Asp Lys Phe Met Lys Glu Ala Thr Thr Asn  
 225 230 235 240

Ala Pro Phe Arg Leu Asn Lys Lys Asp Arg Lys Thr Val Lys Met Met  
 245 250 255

Tyr Gln Lys Lys Lys Phe Ala Tyr Gly Tyr Ile Glu Asp Leu Lys Cys  
 260 265 270

Arg Val Leu Glu Leu Pro Tyr Gln Gly Glu Glu Leu Ser Met Val Ile  
 275 280 285

Leu Leu Pro Asp Asp Ile Glu Asp Glu Ser Thr Gly Leu Lys Lys Ile  
 290 295 300

Glu Glu Gln Leu Thr Leu Glu Lys Leu His Glu Trp Thr Lys Pro Glu  
 305 310 315 320

Asn Leu Asp Phe Ile Glu Val Asn Val Ser Leu Pro Arg Phe Lys Leu  
 325 330 335

Glu Glu Ser Tyr Thr Leu Asn Ser Asp Leu Ala Arg Leu Gly Val Gln  
 340 345 350

Asp Leu Phe Asn Ser Ser Lys Ala Asp Leu Ser Gly Met Ser Gly Ala  
 355 360 365

Arg Asp Ile Phe Ile Ser Lys Ile Val His Lys Ser Phe Val Glu Val  
 370 375 380

Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Ala Gly Ile Ala Thr  
 385 390 395 400

Phe Cys Met Leu Met Pro Glu Glu Asn Phe Thr Ala Asp His Pro Phe  
 405 410 415

Leu Phe Phe Ile Arg His Asn Ser Ser Gly Ser Ile Leu Phe Leu Gly  
 420 425 430

Arg Phe Ser Ser Pro  
 435

&lt;210&gt; 1201



1225

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1201

Gln Leu Gly Pro Val Val Gly Gly Trp Tyr Lys Val Leu Asp Arg Phe  
 1 5 10 15

Ile Pro Gly Thr Thr Lys Val Asp Ala Leu Lys Lys Met Leu Leu Asp  
 20 25 30

Gln Gly Gly Phe Ala Pro Cys Phe Leu Gly Cys Phe Leu Pro Leu Val  
 35 40 45

Gly Ala Leu Asn Gly Leu Ser Ala Gln Asp Asn Trp Pro Asn Tyr Ser  
 50 55 60

Gly Ile Ile Leu Met Pro Leu Ser Pro Thr Thr Ile Tyr Gly Leu Leu  
 65 70 75 80

Cys Xaa

&lt;210&gt; 1202

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1202

Ile Ser Arg Ser Ser Ala Arg Arg Gln Pro Phe Arg His Gly Arg Leu  
 1 5 10 15

Trp Arg Ala Ala Ala Met Ala Leu Arg Tyr Pro Met Ala Val Gly Leu  
 20 25 30

Asn Lys Gly His Lys Val Thr Lys Asn Val Ser Lys Pro Arg His Ser  
 35 40 45

Arg Arg Arg Gly Arg Leu Thr Lys His Thr Lys Phe Val Arg Asp Met  
 50 55 60

Ile Arg Glu Val Cys Gly Phe Ala Pro Tyr Glu Arg Arg Ala Met Glu  
 65 70 75 80

1226

Leu Leu Lys Val Ser Lys Asp Lys Arg Ala Leu Lys Phe Ile Lys Lys  
                             85                            90                            95

Arg Val Gly Thr His Ile Arg Ala Lys Arg Lys Arg Glu Glu Leu Ser  
                             100                            105                            110

Asn Val Leu Ala Ala Met Arg Lys Ala Ala Ala Lys Lys Asp  
                             115                            120                            125

<210> 1203

<211> 130

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1203

Asp Trp Asn Pro Asp Leu Gln Ala Ser Ala Val Cys Ile Lys Arg Val  
   1                            5                            10                            15

Gly Glu Ser Gly Pro Leu Ala Gln Glu Pro Xaa Leu Leu Lys Glu Gly  
                             20                            25                            30

Phe Lys Ala Lys Trp Val Cys Gln Arg Cys Cys Leu Pro Phe Leu Glu  
                             35                            40                            45

Met Leu Ile Ser Leu Ser Lys Thr Glu Lys Ser Arg Cys Tyr Arg Asn  
   50                            55                            60

Asn Leu Val Cys Cys Ile Asn Cys Ser Trp Ala Trp Ser Ser Ile Pro  
   65                            70                            75                            80

Thr Leu Arg Phe Pro Ala Ser Leu Cys Cys Pro Gly Ser His Ser Cys  
                             85                            90                            95

Arg Arg Pro Asn Pro Leu Ala Val Phe Cys Leu Lys Ile Trp Gly Ala  
                             100                            105                            110

Pro Ser Leu Ser Ser Pro Gly Asn Ser Leu Ala Glu Gly Gly Asp Pro  
                             115                            120                            125

Pro Gln  
   130

1227

&lt;210&gt; 1204

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (189)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (196)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (199)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (225)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (228)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1204

Trp Ala Ala Phe Glu Pro Ala Thr Leu Ala Trp Lys Phe Pro Phe Gln  
1 5 10 15

Ser Gly Phe Cys Leu Leu Leu Pro Ser Pro Ser Pro Arg Tyr Leu Phe  
20 25 30

Thr Ser His Leu Ile Ser Leu Cys Ser Ser Val Ser Pro Thr His Ile  
35 40 45

Ile Gly Asp Ser Gly Gly Ser Leu Thr Ser Leu Leu Ser Asn Ala Arg  
50 55 60

Pro Ser Gly Leu Ala Ser Val Ala Ser His Ile Asp Val Thr Leu Glu  
65 70 75 80

Leu Leu Pro Gln Arg Gly Arg Arg Asp Arg Leu Ser Pro His Leu Pro  
85 90 95

Pro Tyr Ser Pro Leu Tyr Ser Arg Phe Asp His Leu Ser Pro Ser Ala  
100 105 110

1228

Ala Pro Ser His Phe Gly Gln Ser Gln Ala Pro Ile Arg Leu Pro Pro  
                   115                                  120                                  125

Pro Pro Gly Ala Pro Ser Ile Ser Leu Ser Pro Leu Pro Gln Asn Leu  
                   130                                  135                                  140

Cys Lys Gly Tyr Glu Arg Asp Pro Leu Pro Ser Arg Pro Pro Leu Arg  
                   145                                  150                                  155                                  160

Ala Val Arg Ser Lys Lys Gln Lys Leu Val Gly Gly Trp Leu Gly Leu  
                                   165                                  170                                  175

Cys Pro Val Pro Arg Trp Asp Lys Leu Ala Phe Ser Xaa Ile Pro Ser  
                                   180                                  185                                  190

Trp Val Pro Xaa Ser Phe Xaa Ala Pro Gly Ala Arg Thr His Cys Ala  
                                   195                                  200                                  205

Val Phe Leu Phe Ser Phe Val Gly Lys Gly Thr Lys Val Phe Ala Lys  
                   210                                  215                                  220

Xaa Pro Val Xaa  
 225

&lt;210&gt; 1205

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1205

Leu Pro Gly Ala Val Ala Ala Ser Ser Gly Ser Pro Pro Gly Ser Ala  
   1                                  5                                  10                                  15

Leu Ala Ala Val Ala Ser Gly Gly Asp Leu Phe Pro Gly Gln Pro Val  
                   20                                  25                                  30

Ser Glu Leu Ile Ala Gln Leu Leu Arg Ala Glu Pro Tyr Pro Ala Ala  
                   35                                  40                                  45

Ala Gly Arg Phe Gly Ala Gly Gly Gly Ala Ala Gly Ala Val Leu Gly  
                   50                                  55                                  60

Ile Asp Asn Val Cys Glu Leu Ala Ala Arg Leu Leu Phe Ser Thr Val

1229

65		70		75		80
Glu Trp Ala Arg His Ala Pro Phe Phe Pro Glu Leu Pro Val Ala Asp						
	85			90		95
Gln Val Ala Leu Leu Arg Leu Ser Trp Ser Glu Leu Phe Val Leu Asn						
	100			105		110
Ala Ala Gln Ala Ala Leu Pro Leu His Thr Ala Pro Leu Leu Ala Xaa						
	115			120		125
Ala Gly Leu His Ala Ala Pro Met Ala Ala Glu Arg Ala Val Ala Phe						
	130			135		140
Met Asp Gln Val Arg Ala Phe Gln Glu Gln Val Asp Lys Leu Gly Arg						
	145			150		155
Leu Gln Val Asp Ser Ala Glu Tyr Gly Cys Leu Lys Ala Ile Ala Leu						
	165			170		175
Phe Thr Pro Asp Ala Cys Gly Leu Ser Asp Pro Ala His Val Glu Ser						
	180			185		190
Leu Gln Glu Lys Ala Gln Val Ala Leu Thr Glu Tyr Val Arg Ala Gln						
	195			200		205
Tyr Pro Ser Gln Pro Gln Arg Phe Gly Arg Leu Leu Leu Arg Leu Pro						
	210			215		220
Ala Leu Arg Ala Val Pro Ala Ser Leu Ile Ser Gln Leu Phe Phe Met						
	225			230		235
Arg Leu Val Gly Lys Thr Pro Ile Glu Thr Leu Ile Arg Asp Met Leu						
	245			250		255
Leu Ser Gly Ser Thr Phe Asn Trp Pro Tyr Gly Ser Gly Gln						
	260			265		270

&lt;210&gt; 1206

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1206

Met Phe His Cys Ser Asp Lys Tyr Phe Thr Phe Phe Ser Val His Gln
1 5 10 15

Arg Glu Arg Asp Pro Pro Thr Ala Val Thr Ser Lys Cys Ser Cys Ser
20 25 30

1230

Ile Asn Gly Val Thr Asp Thr Glu Val His Ser Trp Phe Leu Ser Arg  
                   35                                  40                                  45

Val Val Ile Leu Val Ser Trp Ser Leu Gly His Trp Gly Cys Thr Leu  
           50                                  55                                  60

Lys Ser Pro Asn Arg Leu Ala Ile Lys Ile Asn Lys Ala Ala Ala Pro  
       65                                  70                                  75                                  80

Phe Gln Phe Thr Phe His Leu Thr Gln  
                                   85

<210> 1207

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1207

Cys Val Gly Lys Ala Gly Val Glu Leu Gly Cys Ser Gly Glu Gly Val  
       1                                  5                                  10                                  15

Val Lys Lys Ala Ser Ser Arg Gly His Lys Ala Arg Phe Pro Leu Arg  
                   20                                  25                                  30

Ser His Lys Val Leu Ser Pro Ala Pro Gly Ala Gly Gly Val His Gly  
           35                                  40                                  45

Pro Gly Phe Thr Ser Thr His Pro Ala His Pro Arg Gly Glu Gly Pro  
       50                                  55                                  60

Arg Ala Pro Gly Pro Ala Ala Asp Arg Ile Leu Cys Lys Leu Cys Ser  
       65                                  70                                  75                                  80

Val His Cys Lys Thr Pro Ala Gln Leu Ala Gly His Met Gln Thr His  
                   85                                  90                                  95

Leu Gly Gly Ala Ala Pro Leu Ser Arg Glu Thr Pro Pro Ser His Ser  
           100                                  105                                  110

Pro Pro Ala Glu Gly Asp Pro Arg Thr His Gln Val Leu Val Arg Phe  
           115                                  120                                  125

Val Gln Trp Arg Arg Gln Arg Gln Xaa Arg Gln Arg Gln Arg Gln

1231

130

135

140

Gln

145

&lt;210&gt; 1208

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1208

Ser Ala Ser Arg Ala Thr Ala Met Ser Ser Arg Gly Gly Lys Lys Lys  
 1 5 10 15

Ser Thr Lys Thr Ser Arg Ser Ala Lys Ala Gly Val Ile Phe Pro Val  
 20 25 30

Gly Arg Met Leu Arg Tyr Ile Lys Lys Gly His Pro Lys Tyr Arg Ile  
 35 40 45

Gly Val Gly Ala Pro Val Tyr Met Ala Ala Val Leu Glu Tyr Leu Thr  
 50 55 60

Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys  
 65 70 75 80

Gly Arg Val Thr Pro Arg His Ile Leu Leu Ala Val Ala Asn Asp Glu  
 85 90 95

Glu Leu Asn Gln Leu Leu Lys Gly Val Thr Ile Ala Ser Gly Gly Val  
 100 105 110

Leu Pro Asn Ile His Pro Glu Leu Leu Ala Lys Lys Arg Gly Ser Lys  
 115 120 125

Gly Lys Leu Glu Ala Ile Ile Thr Pro Pro Pro Ala Lys Lys Ala Lys  
 130 135 140

Ser Pro Ser Gln Lys Lys Pro Val Ser Lys Lys Ala Gly Gly Lys Lys  
 145 150 155 160

Gly Ala Arg Lys Ser Lys Lys Gln Gly Glu Val Ser Lys Ala Ala Ser  
 165 170 175

Ala Asp Ser Thr Thr Glu Gly Thr Pro Ala Asp Gly Phe Thr Val Leu  
 180 185 190

Ser Thr Lys Ser Leu Phe Leu Gly Gln Lys Leu Asn Leu Ile His Ser  
 195 200 205

1232

Glu Ile Ser Asn Leu Ala Gly Phe Glu Val Glu Ala Ile Ile Asn Pro  
 210 215 220  
 Thr Asn Ala Asp Ile Asp Leu Lys Asp Asp Leu Gly Asn Thr Leu Glu  
 225 230 235 240  
 Lys Lys Gly Gly Lys Glu Phe Val Glu Ala Val Leu Glu Leu Arg Lys  
 245 250 255  
 Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser Ala Gly His  
 260 265 270  
 Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro Val Trp Gly  
 275 280 285  
 Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys Asn Cys Leu  
 290 295 300  
 Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe Pro Ser Ile  
 305 310 315 320  
 Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala Gln Leu Ile  
 325 330 335  
 Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser Ser Ser Ile  
 340 345 350  
 Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile Gly Ile Tyr  
 355 360 365  
 Val Gln Glu Met Ala Lys Leu Asp Ala Asn  
 370 375

&lt;210&gt; 1209

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



1233

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1209

Arg	Gly	Gly	Lys	Ile	Xaa	Asp	Thr	Phe	Xaa	Arg	Tyr	Ala	Arg	Arg	Tyr
1				5					10					15	

Arg	Ser	Gly	Ile	Pro	Gly	Ser	Thr	His	Ala	Xaa	Ala	Pro	Gly	Ala	Met
			20					25					30		

Arg	Leu	Ser	Leu	Pro	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Trp	Ala	Ile	
		35				40					45				

Pro	Gly	Gly	Leu	Gly	Asp	Arg	Ala	Pro	Leu	Thr	Ala	Thr	Ala	Pro	Gln
	50					55					60				

Leu	Asp	Asp	Glu	Glu	Met	Tyr	Ser	Ala	His	Met	Pro	Ala	His	Leu	Arg
65					70					75					80

Cys	Asp	Ala	Cys	Arg	Ala	Val	Ala	Tyr	Gln	Met	Trp	Gln	Asn	Leu	Ala
				85					90					95	

Lys	Ala	Glu	Thr	Lys	Leu	His	Thr	Ser	Asn	Ser	Gly	Gly	Arg	Arg	Glu
		100						105					110		

Leu	Ser	Glu	Leu	Val	Tyr	Thr	Asp	Val	Leu	Asp	Arg	Ser	Cys	Ser	Arg
		115					120					125			

Asn	Trp	Gln	Asp	Tyr	Gly	Val	Arg	Glu	Val	Asp	Gln	Val	Lys	Arg	Leu
	130					135					140				

Thr	Gly	Pro	Gly	Leu	Ser	Glu	Gly	Pro	Glu	Pro	Ser	Ile	Ser	Val	Met
145				150					155					160	

Val	Thr	Gly	Gly	Pro	Trp	Pro	Thr	Arg	Leu	Ser	Arg	Thr	Cys	Leu	His
			165					170					175		

Tyr	Leu	Gly	Glu	Phe	Gly	Glu	Asp	Gln	Ile	Tyr	Glu	Ala	His	Gln	Gln
		180					185					190			

Gly	Arg	Gly	Ala	Leu	Glu	Ala	Leu	Leu	Cys	Gly	Gly	Pro	Gln	Gly	Ala
	195						200					205			

Cys	Ser	Glu	Lys	Val	Ser	Ala	Thr	Arg	Glu	Glu	Leu				
	210					215					220				

&lt;210&gt; 1210

1234

&lt;211&gt; 231

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1210

Ala	Leu	Ser	Pro	Ala	Met	Val	Val	Pro	Glu	Asp	Gln	Leu	Thr	Arg	Trp	1	5	10	15
His	Pro	Arg	Phe	Asn	Val	Asp	Glu	Val	Pro	Asp	Ile	Glu	Pro	Ala	Ala	20	25	30	
Leu	Pro	Gln	Pro	Pro	Ala	Thr	Glu	Lys	Leu	Thr	Thr	Ala	Gln	Glu	Val	35	40	45	
Leu	Ala	Arg	Ala	Arg	Asn	Leu	Ile	Ser	Pro	Arg	Met	Glu	Lys	Ala	Leu	50	55	60	
Ser	Gln	Leu	Ala	Leu	Arg	Ser	Ala	Ala	Pro	Ser	Ser	Pro	Gly	Ser	Pro	65	70	75	80
Arg	Pro	Ala	Leu	Pro	Ala	Thr	Pro	Pro	Ala	Thr	Pro	Pro	Ala	Ala	Ser	85	90	95	
Pro	Ser	Ala	Leu	Lys	Gly	Val	Ser	Gln	Asp	Leu	Leu	Glu	Arg	Ile	Arg	100	105	110	
Ala	Lys	Glu	Ala	Gln	Lys	Gln	Leu	Ala	Gln	Met	Thr	Arg	Cys	Pro	Glu	115	120	125	
Gln	Glu	Gln	Arg	Leu	Gln	Arg	Leu	Glu	Arg	Leu	Pro	Glu	Leu	Ala	Arg	130	135	140	
Val	Leu	Arg	Ser	Val	Phe	Val	Ser	Glu	Arg	Lys	Pro	Ala	Leu	Ser	Met	145	150	155	160
Glu	Val	Ala	Cys	Ala	Arg	Met	Val	Gly	Ser	Cys	Cys	Thr	Ile	Met	Ser	165	170	175	
Pro	Gly	Glu	Met	Glu	Lys	His	Leu	Leu	Leu	Leu	Ser	Glu	Leu	Leu	Pro	180	185	190	
Asp	Trp	Leu	Ser	Leu	His	Arg	Ile	Arg	Thr	Asp	Thr	Tyr	Val	Lys	Leu	195	200	205	
Asp	Lys	Ala	Ala	Asp	Leu	Ala	His	Ile	Thr	Ala	Arg	Leu	Ala	His	Gln	210	215	220	
Thr	Arg	Ala	Glu	Glu	Gly	Leu	225	230											

1235

&lt;210&gt; 1211

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1211

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Asn Cys Thr Thr Ile Ser Leu Val Tyr Leu His Phe Val Phe Tyr Asn
 1             5             10             15

Ser Tyr Ser Leu Phe Pro Ser Lys Glu Asn Cys Val Tyr Glu Thr Val
          20             25             30

Val Leu Pro Leu Asp Glu Arg Ala Phe Glu Lys Thr Leu Thr Pro Ile
          35             40             45

Ile Gln Glu Tyr Phe Glu His Gly Asp Thr Asn Glu Val Ala Glu Met
          50             55             60

Leu Arg Asp Leu Asn Leu Gly Glu Met Lys Ser Gly Val Pro Val Leu
          65             70             75             80

Ala Val Ser Leu Ala Leu Glu Gly Lys Ala Ser His Arg Glu Met Thr
          85             90             95

Ser Lys Leu Leu Ser Asp Leu Cys Gly Thr Val Met Ser Thr Thr Asp
          100             105             110

Val Glu Lys Ser Phe Asp Lys Leu Leu Lys Asp Leu Pro Glu Leu Ala
          115             120             125

Leu Asp Thr Pro Arg Ala Pro Gln Leu Val Gly Gln Phe Ile Ala Arg
          130             135             140

Ala Val Gly Asp Gly Ile Leu Cys Asn Thr Tyr Ile Asp Ser Tyr Lys
          145             150             155             160

Gly Thr Val Asp Cys Val Gln Ala Arg Ala Ala Leu Asp Lys Ala Thr
          165             170             175

Val Leu Leu Ser Met Ser Lys Gly Gly Lys Arg Lys Asp Ser Val Trp
          180             185             190

Gly Ser Gly Gly Gly Gln Gln Ser Val Asn His Leu Val Lys Glu Ile
          195             200             205

Asp Met Leu Leu Lys Glu Tyr Leu Leu Ser Gly Asp Ile Ser Glu Ala
          210             215             220

Glu His Cys Leu Lys Glu Leu Glu Val Pro His Phe His His Glu Leu
          225             230             235             240

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1237

Phe Ser Met Ile Met Asp Cys Lys Gly Asn Leu Tyr Ser Phe Gly Cys  
65 70 75 80

Pro Glu Tyr Gly Gln Leu Gly His Asn Ser Asp Gly Lys Phe Ile Ala  
85 90 95

Arg Ala Gln Arg Ile Glu Tyr Asp Cys Glu Leu Val Pro Arg Arg Val  
100 105 110

Ala Ile Phe Ile Glu Lys Thr Lys Asp Gly Gln Ile Leu Pro Val Pro  
115 120 125

Asn Val Val Val Arg Asp Val Ala Cys Gly Ala Asn His Thr Leu Val  
130 135 140

Leu Asp Ser Gln Lys Arg Val Phe Ser Trp Gly Phe Gly Gly Tyr Gly  
145 150 155 160

Arg Leu Gly Thr Gln Ser Arg Arg Met Arg Trp Ser Pro Ala Trp  
165 170 175

<210> 1213

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1213

Cys Phe Ile Cys Val Trp Cys Lys Arg Lys Leu Asp Gln Ile Asn Leu  
1 5 10 15

Gln Leu Met Ser Pro Asn Ala Asn Thr Gly Thr His Met His Thr Pro  
20 25 30

Ile Asn Thr His Thr Val His Leu Xaa Lys Gly Gln Val Ile Ser His  
35 40 45

Pro Asn Phe Thr Ser Thr Asp Pro Leu Ala Pro Thr Pro Ala Ser Thr  
50 55 60

Val Thr Ser Lys Ala Arg Ala Thr Cys Ala His Gln Thr Cys Ile Lys  
65 70 75 80

Gln Leu Ala Gly Asp Gly Cys Gly Ala Gly Gly Leu Ser Asp Gly Ser

1238

	85		90		95										
Leu	Leu	Leu	Pro	Leu	Leu	Arg	Val	Lys	Leu	Leu	Ser	Phe	Leu	Arg	Val
			100					105					110		
Tyr	Leu	Cys	Gln	Val	Cys	Ala	Phe	Asn	Cys	Phe	Tyr	Phe	Val	Phe	
		115					120					125			

&lt;210&gt; 1214

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1214

Cys	Thr	Trp	Asn	Arg	Cys	Ser	Ala	Ser	Pro	Ala	Gly	Trp	Gln	Asn	Ser
1				5					10					15	
Phe	Leu	Gly	His	Leu	Asn	Pro	Ser	Ser	Leu	Leu	Gln	Asn	Pro	Pro	Ala
			20					25					30		
Asn	Arg	Ile	Gly	Met	Gly	Ala	Thr	Leu	Asp	Ile	Gln	Arg	Gln	Gln	Arg
		35					40					45			
Met	Glu	Leu	Leu	Asp	Arg	Gln	Leu	Met	Phe	Ser	Gln	Phe	Ala	Gln	Gly
	50					55					60				
Arg	Arg	Gln	Arg	Gln	Gln	Gln	Gly	Gly	Met	Ile	Asn	Trp	Asn	Arg	Leu
	65				70					75					80
Phe	Pro	Pro	Leu	Arg	Gln	Arg	Gln	Asn	Val	Asn	Tyr	Gln	Gly	Gly	Arg
				85					90					95	
Gln	Ser	Glu	Pro	Ala	Ala	Pro	Pro	Leu	Glu	Val	Ser	Glu	Glu	Gln	Val
			100					105					110		
Ala	Arg	Leu	Met	Glu	Met	Gly	Phe	Ser	Arg	Gly	Asp	Ala	Leu	Glu	Ala
		115					120					125			
Leu	Arg	Ala	Ser	Asn	Asn	Asp	Leu	Asn	Val	Ala	Thr	Asn	Phe	Leu	Leu
		130				135					140				
Gln	His														
145															

&lt;210&gt; 1215

&lt;211&gt; 116

&lt;212&gt; PRT

1239

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1215

Leu	Lys	Asn	His	Gln	Lys	Thr	His	Thr	Ser	Glu	Lys	Ser	Tyr	Lys	Cys
1				5					10					15	

Asn	Glu	Cys	Arg	Lys	Ala	Phe	Ser	Tyr	Cys	Ser	Gly	Leu	Ile	Gln	Cys
			20					25					30		

Gln	Val	Ile	His	Thr	Ile	Glu	Lys	Pro	Tyr	Glu	Tyr	Gly	Lys	Cys	Gly
		35					40					45			

Lys	Ala	Phe	Arg	Gln	Arg	Thr	Asp	Leu	Lys	Lys	His	Gln	Lys	Met	His
	50					55					60				

Thr	Glu	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Ser
65					70					75					80

Gln	Ser	Thr	Tyr	Leu	Thr	Lys	His	Gln	Lys	Ile	His	Ser	Glu	Glu	Lys
				85					90					95	

Ser	Asn	Ile	His	Thr	Glu	Cys	Gly	Glu	Thr	Xaa	Xaa	Gln	Asn	Ser	Ser
			100					105					110		

Phe	Leu	Gln	Gln
			115

&lt;210&gt; 1216

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1216

Ala	Ala	Gly	Gly	Glu	Gly	Phe	Gly	Ser	Leu	His	Ala	Ser	Leu	Val	Gly
1				5					10					15	

Phe	Arg	Gly	Val	Val	Ala	Gly	Cys	Ala	Arg	His	Phe	Arg	Ala	Ser	Arg
			20					25						30	

1240

Asn Gly Val Ala Asn Gly Leu Gln Ser Asn Met Pro Lys Phe Tyr Cys  
           35                          40                          45  
 Asp Tyr Cys Asp Thr Tyr Leu Thr His Asp Ser Pro Ser Val Arg Lys  
           50                          55                          60  
 Thr His Cys Ser Gly Arg Lys His Lys Glu Asn Val Lys Asp Tyr Tyr  
           65                          70                          75                          80  
 Gln Lys Trp Met Glu Glu Gln Ala Gln Ser Leu Ile Asp Lys Thr Thr  
                           85                          90                          95  
 Ala Ala Phe Gln Gln Gly Lys Ile Pro Pro Thr Pro Phe Ser Ala Pro  
                           100                          105                          110  
 Pro Pro Ala Gly Ala Met Ile Pro Pro Pro Pro Ser Leu Pro Gly Pro  
                           115                          120                          125  
 Pro Arg Pro Gly Met Met Pro Ala Pro His Met Gly Gly Pro Pro Met  
           130                          135                          140  
 Met Pro Met Met Gly Pro Pro Pro Pro Gly Met Met Pro Val Gly Pro  
   145                          150                          155                          160  
 Ala Pro Gly Met Arg Pro Pro Met Gly Gly His Met Pro Met Met Pro  
                           165                          170                          175  
 Gly Pro Pro Met Met Arg Pro Pro Ala Arg Pro Met Met Val Pro Thr  
                           180                          185                          190  
 Arg Pro Gly Met Thr Arg Pro Asp Arg  
           195                          200

&lt;210&gt; 1217

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1217

Lys Phe Thr Met Lys Phe Leu Leu Ile Leu Leu Leu Gln Ala Thr Ala  
   1                          5                          10                          15  
 Ser Gly Ala Leu Pro Leu Asn Ser Ser Thr Ser Leu Glu Lys Asn Asn  
           20                          25                          30  
 Val Leu Phe Gly Glu Arg Tyr Leu Glu Lys Phe Tyr Gly Leu Glu Ile  
           35                          40                          45  
 Asn Lys Leu Pro Val Thr Lys Met Lys Tyr Ser Gly Asn Leu Met Lys



1241

50					55					60					
Glu	Lys	Ile	Gln	Glu	Met	Gln	His	Phe	Leu	Gly	Leu	Lys	Val	Thr	Gly
65					70					75					80
Gln	Leu	Asp	Thr	Ser	Thr	Leu	Glu	Met	Met	His	Ala	Pro	Arg	Cys	Gly
				85					90					95	
Val	Pro	Asp	Val	His	His	Phe	Arg	Glu	Met	Pro	Gly	Gly	Pro	Val	Trp
			100					105					110		
Arg	Lys	His	Tyr	Ile	Thr	Tyr	Arg	Ile	Asn	Asn	Tyr	Thr	Pro	Asp	Met
		115					120					125			
Asn	Arg	Glu	Asp	Val	Asp	Tyr	Ala	Ile	Arg	Lys	Ala	Phe	Gln	Val	Trp
	130					135					140				
Ser	Asn	Val	Thr	Pro	Leu	Lys	Phe	Ser	Lys	Ile	Asn	Thr	Gly	Met	Ala
145					150					155				160	
Asp	Ile	Leu	Val	Val	Phe	Ala	Arg	Gly	Ala	His	Gly	Asp	Phe	His	Ala
			165					170						175	
Phe	Asp	Gly	Lys	Gly	Gly	Ile	Leu	Ala	His	Ala	Phe	Gly	Pro	Gly	Ser
		180					185						190		
Gly	Ile	Gly	Gly	Asp	Ala	His	Phe	Asp	Glu	Asp	Glu	Phe	Trp	Thr	Thr
	195						200					205			
His	Ser	Gly	Gly	Thr	Asn	Leu	Phe	Leu	Thr	Ala	Val	His	Glu	Ile	Gly
	210					215					220				
His	Ser	Leu	Gly	Leu	Gly	His	Ser	Ser	Asp	Pro	Lys	Ala	Val	Met	Phe
225					230					235				240	
Pro	Thr	Tyr	Lys	Tyr	Val	Asp	Ile	Asn	Thr	Phe	Arg	Leu	Ser	Ala	Asp
			245						250					255	
Asp	Ile	Arg	Gly	Ile	Gln	Ser	Leu	Tyr	Gly	Asp	Pro	Lys	Glu	Asn	Gln
		260					265						270		
Arg	Leu	Pro	Asn	Pro	Asp	Asn	Ser	Glu	Pro	Ala	Leu	Cys	Asp	Pro	Asn
	275						280					285			
Leu	Ser	Phe	Asp	Ala	Val	Thr	Thr	Val	Gly	Asn	Lys	Ile	Phe	Phe	Phe
	290					295					300				
Lys	Asp	Arg	Phe	Phe	Trp	Leu	Lys	Val	Ser	Glu	Arg	Pro	Lys	Thr	Ser
305					310					315				320	
Val	Asn	Leu	Ile	Ser	Ser	Leu	Trp	Pro	Thr	Leu	Pro	Ser	Gly	Ile	Glu

[illegible]

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

Ala Thr Ser Arg Gln Pro Ser Tyr Xaa Arg Thr Trp Cys Arg Arg Cys  
1 5 10 15

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly

1243

20					25					30					
Gln	Leu	Ala	Leu	Phe	Ser	Val	Ser	Asp	Lys	Thr	Gly	Leu	Val	Glu	Phe
	35						40					45			
Ala	Arg	Asn	Leu	Thr	Ala	Leu	Gly	Leu	Asn	Leu	Val	Ala	Ser	Gly	Gly
	50					55					60				
Thr	Ala	Lys	Ala	Leu	Arg	Asp	Ala	Gly	Leu	Ala	Val	Arg	Asp	Val	Ser
	65					70					75				80
Glu	Leu	Thr	Gly	Phe	Pro	Glu	Met	Leu	Gly	Gly	Arg	Val	Lys	Thr	Leu
				85					90					95	
His	Pro	Ala	Val	His	Ala	Gly	Ile	Leu	Ala	Arg	Asn	Ile	Pro	Glu	Asp
			100					105					110		
Asn	Ala	Asp	Met	Ala	Arg	Leu	Asp	Phe	Asn	Leu	Ile	Arg	Val	Val	Ala
		115					120					125			
Cys	Asn	Leu	Tyr	Pro	Phe	Val	Lys	Thr	Val	Ala	Ser	Pro	Gly	Val	Xaa
	130						135				140				
Val	Glu	Glu	Ala	Val	Glu	Gln	Ile	Asp	Ile	Gly	Gly	Val	Thr	Leu	Leu
145						150					155				160
Arg	Ala	Ala	Ala	Lys	Asn	His	Ala	Arg	Val	Thr	Val	Val	Cys	Glu	Pro
				165					170					175	
Glu	Asp	Tyr	Val	Val	Val	Ser	Thr	Glu	Met	Gln	Ser	Ser	Glu	Ser	Lys
			180						185					190	
Asp	Thr	Ser	Leu	Glu	Thr	Arg	Arg	Gln	Leu	Ala	Leu	Lys	Ala	Phe	Thr
			195				200					205			
His	Thr	Ala	Gln	Tyr	Asp	Glu	Ala	Ile	Ser	Asp	Tyr	Phe	Arg	Lys	Gln
			210				215					220			
Tyr	Ser	Lys	Gly	Val	Ser	Gln	Met	Pro	Leu	Arg	Tyr	Gly	Met	Asn	Pro
225						230					235				240
His	Gln	Thr	Pro	Ala	Gln	Leu	Tyr	Thr	Leu	Gln	Pro	Lys	Leu	Pro	Ile
			245						250					255	
Thr	Val	Leu	Asn	Gly	Ala	Pro	Gly	Phe	Ile	Asn	Leu	Cys	Asp	Ala	Leu
			260					265					270		
Asn	Ala	Trp	Gln	Leu	Val	Lys	Glu	Leu	Lys	Glu	Ala	Leu	Gly	Ile	Pro
	275						280					285			
Ala	Ala	Ala	Ser	Phe	Lys	His	Val	Ser	Pro	Ala	Gly	Ala	Ala	Val	Gly

1244

290					295					300					
Ile	Pro	Leu	Ser	Glu	Asp	Glu	Ala	Lys	Val	Cys	Met	Val	Tyr	Asp	Leu
305					310					315					320
Tyr	Lys	Thr	Leu	Thr	Pro	Ile	Ser	Ala	Ala	Tyr	Ala	Arg	Ala	Arg	Gly
				325						330					335
Ala	Asp	Arg	Met	Ser	Ser	Phe	Gly	Asp	Phe	Val	Ala	Leu	Ser	Asp	Val
			340					345						350	
Cys	Asp	Val	Pro	Thr	Ala	Lys	Ile	Ile	Ser	Arg	Glu	Val	Ser	Asp	Gly
		355					360					365			
Ile	Ile	Ala	Pro	Gly	Tyr	Glu	Glu	Glu	Ala	Leu	Thr	Ile	Leu	Ser	Lys
	370					375					380				
Lys	Lys	Asn	Gly	Asn	Tyr	Cys	Val	Leu	Gln	Met	Asp	Gln	Ser	Tyr	Lys
385					390					395					400
Pro	Asp	Glu	Asn	Glu	Val	Arg	Thr	Leu	Phe	Gly	Leu	His	Leu	Ser	Gln
			405						410					415	
Lys	Arg	Asn	Asn	Gly	Val	Val	Asp	Lys	Ser	Leu	Phe	Ser	Asn	Val	Val
			420					425					430		
Thr	Lys	Asn	Lys	Asp	Leu	Pro	Glu	Ser	Ala	Leu	Arg	Asp	Leu	Ile	Val
		435					440					445			
Ala	Thr	Ile	Ala	Val	Lys	Tyr	Thr	Gln	Ser	Asn	Ser	Val	Cys	Tyr	Ala
	450					455					460				
Lys	Asn	Gly	Gln	Val	Ile	Gly	Ile	Gly	Ala	Gly	Gln	Gln	Ser	Arg	Ile
465					470					475					480
His	Cys	Thr	Arg	Leu	Ala	Gly	Asp	Lys	Ala	Asn	Tyr	Trp	Trp	Leu	Arg
				485					490					495	
His	His	Pro	Gln	Val	Leu	Ser	Met	Lys	Phe	Lys	Thr	Gly	Val	Lys	Arg
			500					505					510		
Ala	Glu	Ile	Ser	Asn	Ala	Ile	Asp	Gln	Tyr	Val	Thr	Gly	Thr	Ile	Gly
			515				520					525			
Glu	Asp	Glu	Asp	Leu	Ile	Lys	Trp	Lys	Ala	Leu	Phe	Glu	Glu	Val	Pro
	530					535					540				
Glu	Leu	Leu	Thr	Glu	Ala	Glu	Lys	Lys	Glu	Trp	Val	Glu	Lys	Leu	Thr
545					550					555					560
Glu	Val	Ser	Ile	Ser	Ser	Asp	Ala	Phe	Phe	Pro	Phe	Arg	Asp	Asn	Val

1245

	565		570		575
Asp Arg Ala Lys Arg Ser Gly Val Ala Tyr Ile Ala Ala Pro Pro Val					
	580		585		590
Leu Leu Leu Thr Lys Leu					
	595				
<210> 1219					
<211> 209					
<212> PRT					
<213> Homo sapiens					
<400> 1219					
Tyr Thr Ala Ile Met Ser Ile Met Ser Tyr Asn Gly Gly Ala Val Met					
1	5		10		15
Ala Met Lys Gly Lys Asn Cys Val Ala Ile Ala Ala Asp Arg Arg Phe					
	20		25		30
Gly Ile Gln Ala Gln Met Val Thr Thr Asp Phe Gln Lys Ile Phe Pro					
	35		40		45
Met Gly Asp Arg Leu Tyr Ile Gly Leu Ala Gly Leu Ala Thr Asp Val					
	50		55		60
Gln Thr Val Ala Gln Arg Leu Lys Phe Arg Leu Asn Leu Tyr Glu Leu					
	65		70		75
Lys Glu Gly Arg Gln Ile Lys Pro Tyr Thr Leu Met Ser Met Val Ala					
	85		90		95
Asn Leu Leu Tyr Glu Lys Arg Phe Gly Pro Tyr Tyr Thr Glu Pro Val					
	100		105		110
Ile Ala Gly Leu Asp Pro Lys Thr Phe Lys Pro Phe Ile Cys Ser Leu					
	115		120		125
Asp Leu Ile Gly Cys Pro Met Val Thr Asp Asp Phe Val Val Ser Gly					
	130		135		140
Thr Cys Ala Glu Gln Met Tyr Gly Met Cys Glu Ser Leu Trp Glu Pro					
	145		150		155
Asn Met Asp Pro Asp His Leu Phe Glu Thr Ile Ser Gln Ala Met Leu					
	165		170		175
Asn Ala Val Asp Arg Asp Ala Val Ser Gly Met Gly Val Ile Val His					
	180		185		190

1246

Ile Ile Glu Lys Asp Lys Ile Thr Thr Arg Thr Leu Lys Ala Arg Met  
 195 200 205

Asp

<210> 1220

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1220

Ile Ile Ser Ile Ile Ser Thr Ser Asn Lys Ile Lys Met Ser Glu Ala  
 1 5 10 15

Pro Arg Phe Phe Val Gly Pro Glu Asp Thr Glu Ile Asn Pro Gly Asn  
 20 25 30

Tyr Arg His Phe Phe His His Ala Asp Glu Asp Asp Glu Glu Glu Asp  
 35 40 45

Asp Ser Xaa Pro Glu Arg Gln Ile Val Val Gly Ile Cys Ser Met Xaa  
 50 55 60

Lys Lys Ser Lys Ser Lys Pro Met Lys Glu Ile Leu Xaa Arg Ile Ser  
 65 70 75 80

Leu Phe Lys Tyr Ile Thr Val Val Val Phe Glu Glu Glu Val Ile Leu  
 85 90 95

Asn Glu Pro Val Glu Asn Trp Pro Leu Cys Asp Cys Leu Ile Ser Phe  
 100 105 110

1247

His Ser Lys Gly Phe Pro Leu Asp Lys Ala Val Ala Tyr Ala Lys Leu  
115 120 125

Arg Asn Pro Phe Val Ile Asn Asp Leu Asn Met Gln  
130 135 140

&lt;210&gt; 1221

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1221

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met  
1 5 10 15

Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile  
20 25 30

Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val  
35 40 45

&lt;210&gt; 1222

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1222

Val Ala Tyr Ile Cys Tyr Ser Lys Phe Cys Lys Tyr Ala Asn Gln Leu  
1 5 10 15

Tyr Arg Phe Ile Thr Ser Phe Leu Gly Phe Phe Trp Gly Arg Val Ile  
20 25 30

Ile Leu Leu Lys Ile Thr Met Asn Thr Leu Thr Val Arg Ile Cys Gly  
35 40 45

Lys Val Pro Leu Asn Ile Thr Lys Ile Ile Ser Leu Glu Gly Arg Asn  
50 55 60

Asn His Ser Asn Glu Leu  
65 70

&lt;210&gt; 1223

&lt;211&gt; 88

&lt;212&gt; PRT

1248

&lt;213&gt; Homo sapiens

&lt;400&gt; 1223

```

Phe Tyr Pro Ser Thr Tyr Leu Lys Ala Pro Ser Ser Leu Val Cys Gly
 1             5             10             15

Val Leu Glu Pro Val Ser Ser Phe Trp Arg Phe Lys Leu Asn Ser Asn
      20             25             30

Asn Tyr Val Thr Gln Ser Met Trp Arg Lys Ser Glu Thr Ser His Gly
      35             40             45

Asp Ala Gly Pro Arg Ala Arg Pro Ala Val Trp Pro Ala Leu Leu Thr
      50             55             60

Ser Val Ser Arg Ser Phe Pro Ser His Glu Val Pro Ser Gly His Gly
      65             70             75             80

Asp Glu Gly Arg Glu Gly Thr Gly
      85

```

&lt;210&gt; 1224

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (279)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1224

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Ala Thr Arg Arg Arg Ala Ala Glu Ala Gly Met Ala Ala Val Leu Gln
 1             5             10             15

Arg Val Glu Arg Leu Ser Asn Arg Val Val Arg Val Leu Gly Cys Asn
      20             25             30

Pro Gly Pro Met Thr Leu Gln Gly Thr Asn Thr Tyr Leu Val Gly Thr
      35             40             45

Gly Pro Arg Arg Ile Leu Ile Asp Thr Gly Glu Pro Ala Ile Pro Glu
      50             55             60

Tyr Ile Ser Cys Leu Lys Gln Ala Leu Thr Glu Phe Asn Thr Ala Ile
      65             70             75             80

Gln Glu Ile Val Val Thr His Trp His Arg Asp His Ser Gly Gly Ile
      85             90             95

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1249

Gly Asp Ile Cys Lys Ser Ile Asn Asn Asp Thr Thr Tyr Cys Ile Lys  
                   100                  105                  110  
 Lys Leu Pro Arg Asn Pro Gln Arg Glu Glu Ile Ile Gly Asn Gly Glu  
                   115                  120                  125  
 Gln Gln Tyr Val Tyr Leu Lys Asp Gly Asp Val Ile Lys Thr Glu Gly  
                   130                  135                  140  
 Ala Thr Leu Arg Val Leu Tyr Thr Pro Gly His Thr Asp Asp His Met  
                   145                  150                  155                  160  
 Ala Leu Leu Leu Glu Glu Asn Ala Ile Phe Ser Gly Asp Cys Ile  
                   165                  170                  175  
 Leu Gly Glu Gly Thr Thr Val Phe Glu Asp Leu Tyr Asp Tyr Met Asn  
                   180                  185                  190  
 Ser Leu Lys Glu Leu Leu Lys Ile Lys Ala Asp Ile Ile Tyr Pro Gly  
                   195                  200                  205  
 His Gly Pro Val Ile His Asn Ala Glu Ala Lys Ile Gln Gln Tyr Ile  
                   210                  215                  220  
 Ser His Arg Asn Ile Arg Glu Gln Gln Ile Leu Thr Leu Phe Arg Glu  
                   225                  230                  235                  240  
 Asn Phe Glu Lys Ser Phe Thr Val Met Glu Leu Val Lys Ile Ile Tyr  
                   245                  250                  255  
 Lys Asn Thr Pro Glu Asn Leu His Glu Met Ala Lys His Asn Leu Leu  
                   260                  265                  270  
 Leu His Leu Lys Lys Leu Xaa Lys Glu Gly Lys Ile Phe Ser Asn Thr  
                   275                  280                  285  
 Asp Pro Asp Lys Lys Trp Lys Ala His Leu  
                   290                  295

&lt;210&gt; 1225

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1225

Val Ser Gly Asp Tyr Gly His Pro Val Tyr Ile Val Gln Asp Gly Pro  
       1                  5                  10                  15

1250

Pro Gln Ser Pro Pro Asn Ile Tyr Tyr Lys Val  
 20 25

&lt;210&gt; 1226

&lt;211&gt; 380

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1226

Glu Gln Glu Leu Asp Thr Leu Lys Arg Lys Ser Pro Ser Asp Leu Trp  
 1 5 10 15

Lys Glu Asp Leu Ala Thr Phe Ile Glu Glu Leu Glu Ala Val Glu Ala  
 20 25 30

Lys Glu Lys Gln Asp Glu Gln Val Gly Leu Pro Gly Lys Val Gly Lys  
 35 40 45

Ala Lys Gly Lys Lys Thr Gln Met Ala Glu Val Leu Pro Ser Pro Arg  
 50 55 60

Gly Gln Arg Val Ile Pro Arg Ile Thr Ile Glu Met Lys Ala Glu Ala  
 65 70 75 80

Glu Lys Lys Asn Lys Lys Lys Ile Lys Asn Glu Asn Thr Glu Gly Ser  
 85 90 95

Pro Gln Glu Asp Gly Val Glu Leu Glu Gly Leu Lys Gln Arg Leu Glu  
 100 105 110

Lys Lys Gln Lys Arg Glu Pro Gly Thr Lys Thr Lys Lys Gln Thr Thr  
 115 120 125

Leu Ala Phe Lys Pro Ile Lys Lys Gly Lys Lys Arg Asn Pro Trp Ser  
 130 135 140

Asp Ser Glu Ser Asp Arg Ser Ser Asp Glu Ser Asn Phe Asp Val Pro  
 145 150 155 160

Pro Arg Glu Thr Glu Pro Arg Arg Ala Ala Thr Lys Thr Lys Phe Thr  
 165 170 175

Met Asp Leu Asp Ser Asp Glu Asp Phe Ser Asp Phe Asp Glu Lys Thr  
 180 185 190

Asp Asp Glu Asp Phe Val Pro Ser Asp Ala Ser Pro Pro Lys Thr Lys  
 195 200 205

Thr Ser Pro Lys Leu Ser Asn Lys Glu Leu Lys Pro Gln Lys Ser Val

1251

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      210              215              220
Val Ser Asp Leu Glu Ala Asp Asp Val Lys Gly Ser Val Pro Leu Ser
225              230              235              240
Ser Ser Pro Pro Ala Thr His Phe Pro Asp Glu Thr Glu Ile Thr Asn
      245              250              255
Pro Val Pro Lys Lys Asn Val Thr Val Lys Lys Thr Ala Ala Lys Ser
      260              265              270
Gln Ser Ser Thr Ser Thr Thr Gly Ala Lys Lys Arg Ala Ala Pro Lys
      275              280              285
Gly Thr Lys Arg Asp Pro Ala Leu Asn Ser Gly Val Ser Gln Lys Pro
      290              295              300
Asp Pro Ala Lys Thr Lys Asn Arg Arg Lys Arg Lys Pro Ser Thr Ser
305              310              315              320
Asp Asp Ser Asp Ser Asn Phe Glu Lys Ile Val Ser Lys Ala Val Thr
      325              330              335
Ser Lys Lys Ser Lys Gly Glu Ser Asp Asp Phe His Met Asp Phe Asp
      340              345              350
Ser Ala Val Ala Pro Arg Ala Lys Ser Val Arg Ala Lys Lys Pro Ile
      355              360              365
Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe
      370              375              380

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&lt;210&gt; 1227

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1227

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Phe Asn Ser Leu Lys Cys Leu Phe Gly Ile Met Ile Gly Asn Leu Asp
  1              5              10              15

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Glu Phe Arg Gly Lys Lys Leu Ser Ala Xaa Met Leu Arg Ala His Leu
      20              25              30

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1252

Ser Pro His Thr Pro Thr Glu Leu Thr Gly Leu Gln Cys Phe Ile Arg  
                   35                  40                  45

Lys Phe Pro Ile Pro Leu Ser Cys Val Phe Met Leu Lys Ile Leu Leu  
           50                  55                  60

His Phe Ser Phe Glu Cys Gln Phe Leu Thr Ser Thr Ile Ser  
   65                  70                  75

<210> 1228

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1228

Ala Asn Glu Lys Val Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser  
   1                  5                  10                  15

Ile His Gly Arg Pro Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro  
                   20                  25                  30

Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn  
           35                  40                  45

Thr Ile Pro Ile Ile Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu  
   50                  55                  60

Leu Gln Pro Ile Ile Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile  
   65                  70                  75                  80

Lys Glu Glu Glu Glu Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp  
                   85                  90                  95

Phe Met Val Thr Leu Lys Thr Asp Phe Ser Ala Arg Cys Phe Leu Asp  
                   100                  105                  110

Gln Phe Glu Asp Asp Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys  
           115                  120                  125

Ile Pro Ser Lys Cys Ser Gln Asp Thr Gly Leu Ser Asn Xaa His Ala  
   130                  135                  140

Ala Ser Ile Pro Glu Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu  
   145                  150                  155                  160

1253

Lys Lys Arg Ile Arg Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe  
                     165                    170                    175  
 Arg Gln Asn Gly Arg Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala  
                     180                    185                    190  
 Glu Glu Tyr Ser Glu Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu  
                     195                    200                    205  
 Glu Val Leu Ile Ser Lys Arg Asp Thr Asp Ser Lys Ser Met  
                     210                    215                    220

<210> 1229  
 <211> 220  
 <212> PRT  
 <213> Homo sapiens

<400> 1229  
 Lys Gly Ser Thr Leu Gly His Leu Cys Thr Ala Met Ala Gly Met Met  
   1                    5                    10                    15  
 Lys Gly Ile Arg Trp Ser Cys Pro Ala Ile Ala Ser Ile Ser Gln Thr  
                     20                    25                    30  
 Arg Ser Ser Gln Glu Lys Asp Ser Ser Ser Pro Pro Trp Asp Leu Arg  
                     35                    40                    45  
 Arg Ala Ala Thr Glu Gly Glu Ala Pro Asp Ala Leu Cys Gln Ser Gln  
                     50                    55                    60  
 Val Arg Gly Gln Ser Ser Pro Cys His Pro Trp Cys Arg Pro Ala Pro  
   65                    70                    75                    80  
 Ser Ser Phe Met Pro Gly Pro Ala Gly Thr Pro Ala Thr Thr Glu Ser  
                     85                    90                    95  
 Thr Arg Ser Ala Leu Cys Ser Trp Arg Arg His Ser Arg Val Glu Ser  
                     100                    105                    110  
 Cys Pro Ser Leu Ser Leu Gly His Leu Gly Gly Glu Ser Gly Leu Arg  
                     115                    120                    125  
 Ser Glu Leu Asp Pro Gly Asp Leu Gly Ser Phe Phe Leu Ala His Gln  
                     130                    135                    140  
 Pro Cys Arg Pro His Leu Ser Gln Asn Pro Leu Cys Leu Gly Gly Ser  
   145                    150                    155                    160

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<400> 1230
Glu Leu Lys Arg Leu Thr Ile Gly Lys Asn Xaa Xaa Arg Leu Thr Gly
 1             5             10             15
Asn Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Glu Xaa Glu Val
      20             25             30
Glu Glu Glu Gly Asp Val Asp Ser Asp Glu Glu Glu Glu Glu Asp Glu
      35             40             45
Glu Ser Ser Ser Glu Gly Leu Glu Ala Glu Asp Trp Ala Gln Gly Val
      50             55             60

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1255

Val Glu Ala Gly Gly Ser Phe Gly Ala Tyr Gly Ala Gln Glu Glu Ala  
 65 70 75 80  
 Gln Cys Pro Thr Leu His Phe Leu Glu Gly Gly Glu Asp Ser Asp Ser  
 85 90 95  
 Asp Ser Glu Glu Glu Asp Asp Glu Glu Glu Asp Asp Glu Asp Glu Asp  
 100 105 110  
 Asp Asp Asp Asp Glu Glu Asp Gly Asp Glu Val Pro Val Pro Ser Phe  
 115 120 125  
 Gly Glu Ala Met Ala Tyr Phe Ala Met Val Lys Arg Tyr Leu Thr Ser  
 130 135 140  
 Phe Pro Ile Asp Asp Arg Val Gln Ser His Ile Leu His Leu Glu His  
 145 150 155 160  
 Asp Leu Val His Val Thr Arg Lys Asn His Ala Arg Gln Ala Gly Val  
 165 170 175  
 Arg Gly Leu Gly His Gln Ser  
 180

&lt;210&gt; 1231

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1231

Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile  
 1 5 10 15  
 Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val  
 20 25 30  
 Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn  
 35 40 45  
 Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu  
 50 55

&lt;210&gt; 1232

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1256

&lt;400&gt; 1232

Gly Ser Thr His Ala Ser Gly Pro Pro Gln Ala Pro Gln Leu Ile Tyr  
 1 5 10 15  
 Gln Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro  
 20 25 30  
 Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu  
 35 40 45  
 Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val  
 50 55 60  
 Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln  
 65 70 75 80  
 Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala  
 85 90 95  
 Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala  
 100 105 110  
 Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr  
 115 120 125  
 Leu Gly Leu Asp Val Pro Val  
 130 135

&lt;210&gt; 1233

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1233

Arg Gly Glu Thr Arg Glu Met Ala Gly Asn Leu Leu Ser Gly Ala Gly  
 1 5 10 15  
 Arg Arg Leu Trp Asp Trp Val Pro Leu Ala Cys Arg Ser Phe Ser Leu  
 20 25 30  
 Gly Val Pro Arg Leu Ile Gly Ile Arg Leu Thr Leu Pro Pro Pro Lys  
 35 40 45  
 Val Val Asp Arg Trp Asn Glu Lys Arg Ala Met Phe Gly Val Tyr Asp  
 50 55 60  
 Asn Ile Gly Ile Leu Gly Asn Phe Glu Lys His Pro Lys Glu Leu Ile  
 65 70 75 80



1257

Arg Gly Pro Ile Trp Leu Arg Gly Trp Lys Gly Asn Glu Leu Gln Arg  
                     85                    90                    95

Cys Ile Arg Lys Arg Lys Met Val Gly Ser Arg Met Phe Ala Asp Asp  
                     100                    105                    110

Leu His Asn Leu Asn Lys Arg Ile Arg Tyr Leu Tyr Lys His Phe Asn  
                     115                    120                    125

Arg His Gly Lys Phe Arg  
                     130

&lt;210&gt; 1234

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1234

Thr Gly Pro Glu Phe Pro Gly Xaa Pro Thr Arg Pro Arg Thr Ala Ala  
   1                    5                    10                    15

Ala Xaa Ser Ala Arg Thr Arg Thr Arg Gly Ser Pro Arg Met Gly Glu  
                     20                    25                    30

Phe Asn Glu Lys Lys Thr Thr Cys Gly Thr Val Cys Leu Lys Tyr Leu  
                     35                    40                    45

Leu Phe Thr Tyr Asn Cys Cys Phe Trp Leu Ala Gly Leu Ala Val Met  
                     50                    55                    60

Ala Val Gly Ile Trp Thr Leu Ala Leu Lys Ser Asp Tyr Ile Ser Leu  
   65                    70                    75                    80

Leu Ala Ser Gly Thr Tyr Leu Ala Thr Ala Tyr Ile Leu Val Val Ala  
                     85                    90                    95

Gly Thr Val Val Met Val Thr Gly Val Leu Gly Cys Cys Ala Thr Phe  
                     100                    105                    110

Lys	Glu	Arg	Arg	Asn	Leu	Leu	Arg	Leu	Tyr	Phe	Ile	Leu	Leu	Leu	Ile
115				120				125							
Ile	Phe	Leu	Leu	Glu	Ile	Ile	Ala	Gly	Ile	Leu	Ala	Tyr	Ala	Tyr	Tyr
130				135				140							
Gln	Gln	Leu	Asn	Thr	Glu	Leu	Lys	Glu	Asn	Leu	Lys	Asp	Thr	Met	Thr
145				150				155				160			
Lys	Arg	Tyr	His	Gln	Pro	Gly	His	Glu	Ala	Val	Thr	Ser	Ala	Val	Asp
165				170				175							
Gln	Leu	Gln	Gln	Glu	Phe	His	Cys	Cys	Gly	Ser	Asn	Asn	Ser	Gln	Asp
180				185				190							
Trp	Arg	Asp	Ser	Glu	Trp	Ile	Arg	Ser	Gln	Glu	Ala	Gly	Gly	Arg	Val
195				200				205							
Val	Pro	Asp	Ser	Cys	Cys	Lys	Thr	Val	Val	Ala	Leu	Cys	Gly	Gln	Arg
210				215				220							
Asp	His	Ala	Ser	Asn	Ile	Tyr	Lys	Val	Glu	Gly	Gly	Cys	Ile	Thr	Lys
225				230				235				240			
Leu	Glu	Thr	Phe	Ile	Gln	Glu	His	Leu	Arg	Val	Ile	Gly	Ala	Val	Gly
245				250				255							
Ile	Gly	Ile	Ala	Cys	Val	Gln	Val	Phe	Gly	Met	Ile	Phe	Thr	Cys	Cys
260				265				270							
Leu	Tyr	Arg	Ser	Leu	Lys	Leu	Glu	His	Tyr						
275				280											

Arg Ser Lys Val Pro Pro Pro Arg Asp Phe His Ile Asn Leu Phe Arg  
35 40 45

1259

Met Gln Pro Trp Leu Arg Gln His Leu Gly Asp Val Leu Asn Phe Leu  
 50 55 60

Pro Leu  
 65

<210> 1236  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 1236  
 Ala Arg Arg Arg Arg Gly Gly Trp Ala Gly Gly Gly Gly Gly Thr Arg  
 1 5 10 15

Arg Ala Leu Gly Val Pro Val Ala Arg Arg Arg Arg Met Trp Arg Ala  
 20 25 30

Glu Gly Lys Trp Leu Pro Lys Thr Ser Arg Lys Ser Val Ser Gln Ser  
 35 40 45

Val Phe Cys Gly Thr Ser Thr Tyr Cys Val Leu Asn Thr Val Pro Pro  
 50 55 60

Ile Glu Asp Asp His Gly Asn Ser Asn Ser Ser His Val Lys Ile Phe  
 65 70 75 80

Leu Pro Lys Lys Leu Leu Glu Cys Leu Pro Lys Cys Ser Ser Leu Pro  
 85 90 95

Lys Glu Arg His Arg Trp Asn Thr Asn Glu Arg Ser  
 100 105

<210> 1237  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 1237  
 Arg Gly Gly Gly Ser Lys Gly Asn Glu Val Arg Pro Val Ala Gly Ser  
 1 5 10 15

Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln  
 20 25 30

Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val  
 35 40 45

1260

Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr  
           50                          55                          60  
 Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro  
   65                          70                          75                          80  
 Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr  
                           85                          90                          95  
 Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys  
                   100                          105                          110  
 Pro Leu Met Asn  
           115

&lt;210&gt; 1238

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1238

Val Thr Ser Glu Gly Val Arg Val Arg Ser Ser Arg Gly Arg Ala Xaa  
   1                          5                          10                          15  
 Gly Val Trp Arg Phe Glu Arg Asp Glu Asp Gly Thr Gly Ala Gly Cys  
                   20                          25                          30  
 Gly Gln Trp Thr Arg Phe Cys Arg Glu Pro Lys Met Ala Val Asn Val  
           35                          40                          45  
 Tyr Ser Thr Ser Val Thr Ser Asp Asn Leu Ser Arg His Asp Met Leu  
   50                          55                          60  
 Ala Trp Ile Asn Glu Ser Leu Gln Leu Asn Leu Thr Lys Ile Glu Gln  
   65                          70                          75                          80  
 Leu Cys Ser Gly Ala Ala Tyr Cys Gln Phe Met Asp Met Leu Phe Pro  
                   85                          90                          95  
 Gly Ser Ile Ala Leu Lys Lys Val Lys Phe Gln Ala Lys Leu Glu His  
           100                          105                          110  
 Glu Tyr Ile Gln Asn Phe Lys Ile Leu Gln Ala Gly Phe Lys Arg Met

1261

115	120	125
Gly Val Asp Lys Ile Ile Pro Val Asp Lys Leu Val Lys Gly Lys Phe		
130	135	140
Gln Asp Asn Phe Glu Phe Val Gln Trp Phe Lys Lys Phe Phe Asp Ala		
145	150	155 160
Asn Tyr Asp Gly Lys Asp Tyr Asp Pro Val Ala Ala Arg Gln Gly Gln		
	165 170	175
Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro		
	180 185	190
Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser		
	195 200	205
Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg		
	210 215	220
Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met		
225	230 235	240
Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu		
	245 250	255
Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln		
	260 265	270
Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile		
	275 280	285
Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro		
	290 295	300
Gln Glu Glu Gln Glu Glu Tyr		
305	310	

&lt;210&gt; 1239

&lt;211&gt; 345

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1239

Ala Ala Arg Leu Ala Val Glu Met Lys Thr Asp Leu Leu Ile Val Leu
1 5 10 15

Ser Asp Val Glu Gly Leu Phe Asp Ser Pro Pro Gly Ser Asp Asp Ala
20 25 30

Lys	Leu	Ile	Asp	Ile	Phe	Tyr	Pro	Gly	Asp	Gln	Gln	Ser	Val	Thr	Phe	
		35						40					45			
Gly	Thr	Lys	Ser	Arg	Val	Gly	Met	Gly	Gly	Met	Glu	Ala	Lys	Val	Lys	
	50					55					60					
Ala	Ala	Leu	Trp	Ala	Leu	Gln	Gly	Gly	Thr	Ser	Val	Val	Ile	Ala	Asn	
65					70					75					80	
Gly	Thr	His	Pro	Lys	Val	Ser	Gly	His	Val	Ile	Thr	Asp	Ile	Val	Glu	
				85					90					95		
Gly	Lys	Lys	Val	Gly	Thr	Phe	Phe	Ser	Glu	Val	Lys	Pro	Ala	Gly	Pro	
			100					105					110			
Thr	Val	Glu	Gln	Gln	Gly	Glu	Met	Ala	Arg	Ser	Gly	Gly	Arg	Met	Leu	
		115					120					125				
Ala	Thr	Leu	Glu	Pro	Glu	Gln	Arg	Ala	Glu	Ile	Ile	His	His	Leu	Ala	
	130					135					140					
Asp	Leu	Leu	Thr	Asp	Gln	Arg	Asp	Glu	Ile	Leu	Leu	Ala	Asn	Lys	Lys	
145					150					155					160	
Asp	Leu	Glu	Glu	Ala	Glu	Gly	Arg	Leu	Ala	Ala	Pro	Leu	Leu	Lys	Arg	
				165					170					175		
Leu	Ser	Leu	Ser	Thr	Ser	Lys	Leu	Asn	Ser	Leu	Ala	Ile	Gly	Leu	Arg	
			180					185					190			
Gln	Ile	Ala	Ala	Ser	Ser	Gln	Asp	Ser	Val	Gly	Arg	Val	Leu	Arg	Arg	
	195						200					205				
Thr	Arg	Ile	Ala	Lys	Asn	Leu	Glu	Leu	Glu	Gln	Val	Thr	Val	Pro	Ile	
	210					215					220					
Gly	Val	Leu	Leu	Val	Ile	Phe	Glu	Ser	Arg	Pro	Asp	Cys	Leu	Pro	Gln	
225					230					235					240	
Val	Ala	Ala	Leu	Ala	Ile	Ala	Ser	Gly	Asn	Gly	Leu	Leu	Leu	Lys	Gly	
				245					250					255		
Gly	Lys	Glu	Ala	Ala	His	Ser	Asn	Arg	Ile	Leu	His	Leu	Leu	Thr	Gln	
			260					265					270			
Glu	Ala	Leu	Ser	Ile	His	Gly	Val	Lys	Glu	Ala	Val	Gln	Leu	Val	Asn	
		275					280					285				
Thr	Arg	Glu	Glu	Val	Glu	Asp	Leu	Cys	Arg	Leu	Asp	Lys	Met	Ile	Asp	
	290					295						300				

1263

Leu Ile Ile Pro Arg Gly Ser Ser Gln Leu Val Arg Asp Ile Gln Lys  
305 310 315 320

Ala Ala Lys Gly Ile Pro Val Met Gly His Ser Glu Gly Ile Cys Ala  
325 330 335

His Val Cys Gly Phe Arg Gly Gln Cys  
340 345

&lt;210&gt; 1240

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1240

Gly Tyr Cys Phe Ile Ser Thr Ser Arg Thr Pro Lys Glu Thr Ile Trp  
1 5 10 15

Val Lys Ala Thr Ser Thr Ala Leu Ala Leu His Arg Phe Leu Glu Phe  
20 25 30

Leu Ser Phe Thr Phe Ser Leu Thr Gln His Cys Leu Leu Phe Val Phe  
35 40 45

Val Ala Trp Phe Val Phe Phe Leu Pro Cys Ser Pro Asn Leu Cys Pro  
50 55 60

Asn Ser Phe Gly Leu Met Gln Lys Tyr Leu Cys Gly Arg Glu Glu Leu  
65 70 75 80

Phe Ser Trp Arg Ala Phe Arg  
85

&lt;210&gt; 1241

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1241

Arg Ala Gly Ser Pro Ala Ser Pro Ala His Val Ala Trp Pro Pro Ala  
1 5 10 15

Pro Thr Trp Ser Arg Ala Leu Pro Arg Val Ala Pro Arg Ser Ser Ser  
20 25 30

Arg Arg Gly Arg Arg Tyr Pro Glu Arg Ser Gln Arg Arg Arg Glu Val

1264

35	40	45
Ala Ala Thr Ala Met Pro Lys Asn Lys Gly Lys Gly Gly Lys Asn Arg		
50	55	60
Arg Arg Gly Lys Asn Glu Asn Glu Ser Glu Lys Arg Glu Leu Val Phe		
65	70	75
Lys Glu Asp Gly Gln Glu Tyr Ala Gln Val Ile Lys Met Leu Gly Asn		
	85	90
Gly Arg Leu Glu Ala Met Cys Phe Asp Gly Val Lys Arg Leu Cys His		
100	105	110
Ile Arg Gly Lys Leu Arg Lys Lys Val Trp Ile Asn Thr Ser Asp Ile		
115	120	125
Ile Leu Val Gly Leu Arg Asp Tyr Gln Asp Asn Lys Ala Asp Val Ile		
130	135	140
Leu Lys Tyr Asn Ala Asp Glu Ala Arg Ser Leu Lys Ala Tyr Gly Glu		
145	150	155
Leu Pro Glu His Ala Lys Ile Asn Glu Thr Asp Thr Phe Gly Pro Gly		
	165	170
Asp Asp Asp Glu Ile Gln Phe Asp Asp Ile Gly Asp Asp Asp Glu Asp		
180	185	190
Ile Asp Asp Ile		
195		

&lt;210&gt; 1242

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1242

Ala Val Xaa Phe Lys Asp Xaa Ile Tyr Glu Ile Phe Gln Lys Leu Asn



1265

1	5	10	15
Thr Ser Ile Gln Val Val Leu Leu Ser Ala Thr Met Pro Thr Asp Val	20	25	30
Leu Glu Val Thr Lys Lys Phe Met Arg Asp Pro Ile Arg Ile Leu Val	35	40	45
Lys Lys Glu Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr Ile Asn	50	55	60
Val Glu Arg Glu Glu Trp Lys Leu Asp Thr Leu Cys Asp Leu Tyr Glu	65	70	75
Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Leu Asn Thr Arg Arg Lys	85	90	95
Val Asp Trp Leu Thr Glu Lys Met His Ala Arg Asp Phe Thr Val Ser	100	105	110
Ala Leu His Gly Asp Met Asp Gln Lys Glu Arg Asp Val Ile Met Arg	115	120	125
Glu Phe Arg Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu	130	135	140
Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn Tyr Asp	145	150	155
Leu Pro Thr Asn Arg Glu Asn Tyr Ile His Arg Ile Gly Arg Gly Gly	165	170	175
Arg Phe Gly Arg Lys Gly Val Ala Ile Asn Phe Val Thr Glu Glu Asp	180	185	190
Lys Arg Ile Leu Arg Asp Ile Glu Thr Phe Tyr Asn Thr Thr Val Glu	195	200	205
Glu Met Pro Met Asn Val Ala Asp Leu Ile	210	215	

&lt;210&gt; 1243

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1243

Leu Asp Gly Ser Ala Arg Ala Glu Leu Ala Leu Ser Val Ala Val Asn	1	5	10	15
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1266

Val Ala Pro Gly Arg Leu Cys Ala Gly Arg Tyr Ser Ser Asp Val Gln  
                   20                                  25                                  30  
 Glu Met Ile Leu Ser Ser Ala Thr Ala Asp Arg Ile Pro Ile Ala Val  
                   35                                  40                                  45  
 Ser Gly Val Arg Gly Met Gly Phe Leu Met Arg His His Ile Glu Thr  
                   50                                  55                                  60  
 Gly Gly Gly Gln Leu Pro Ala Lys Leu Ser Ser Leu Phe Val Lys Cys  
                   65                                  70                                  75                                  80  
 Leu Gln Asn Pro Ser Ser Asp Ile Arg Leu Val Ala Glu Lys Met Ile  
                                   85                                  90                                  95  
 Trp Trp Ala Asn Lys Asp Pro Leu Pro Pro Leu Asp Pro Gln Ala Ile  
                   100                                  105                                  110  
 Lys Pro Ile Leu Lys Ala Leu Leu Asp Asn Thr Lys Asp Lys Asn Thr  
                   115                                  120                                  125  
 Val Val Arg Ala Tyr Ser Asp Gln Ala Ile Val Asn Leu Leu Lys Met  
                   130                                  135                                  140  
 Arg Gln Gly Glu Glu Val Phe Gln Ser Leu Ser Lys Ile Leu Asp Val  
                   145                                  150                                  155                                  160  
 Ala Ser Leu Glu Val Leu Asn Glu Val Asn Arg Ser Pro  
                   165                                  170

&lt;210&gt; 1244

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1244

Tyr Ile Lys Ile Tyr Gln Gly Glu Glu Leu Pro His Pro Lys Ser Met  
           1                                  5                                  10                                  15

1267

Xaa Gln Ala Thr Ala Glu Ala Asn Asn Leu Ala Ala Val Ala Thr Ala  
                   20                                  25                                  30  
 Lys Asp Thr Tyr Asn Lys Lys Met Glu Glu Ile Cys Gly Gly Asp Lys  
                   35                                  40                                  45  
 Pro Phe Leu Ala Pro Asn Asp Leu Gln Thr Lys His Leu Gln Leu Lys  
                   50                                  55                                  60  
 Glu Glu Ser Val Lys Leu Phe Xaa Gly Val Lys Lys Met Gly Gly Glu  
                   65                                  70                                  75                                  80  
 Glu Phe Ser Arg Arg Tyr Leu Gln Gln Leu Glu Ser Glu Ile Asp Glu  
                                   85                                  90                                  95  
 Leu Tyr Ile Gln Tyr Ile Lys His Asn Asp Ser Lys Asn Ile Phe His  
                                   100                                  105                                  110  
 Ala Ala Arg Thr Pro Ala Thr Leu Phe Val Val Ile Phe Ile Thr Tyr  
                   115                                  120                                  125  
 Val Ile Ala Gly Val Thr Gly Phe Ile Gly Leu Asp Ile Ile Ala Ser  
                   130                                  135                                  140  
 Leu Cys Asn Met Ile Met Gly Leu Thr Leu Ile Thr Leu Cys Thr Trp  
                   145                                  150                                  155                                  160  
 Ala Tyr Ile Arg Tyr Ser Gly Glu Tyr Arg Glu Leu Gly Ala Val Ile  
                                   165                                  170                                  175  
 Asp Gln Val Ala Ala Ala Leu Trp Asp Gln Ala Leu Tyr Lys Leu Tyr  
                   180                                  185                                  190  
 Ser Ala Ala Ala Thr His Arg His Leu Tyr His Gln Ala Phe Pro Thr  
                   195                                  200                                  205  
 Pro Lys Ser Glu Ser Thr Glu Gln Ser Glu Lys Lys Lys Met  
                   210                                  215                                  220

&lt;210&gt; 1245

&lt;211&gt; 278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1245

Ser Ala Glu Asp Val Glu Phe Gln Lys Glu Val Ala Gln Val Arg Lys  
           1                                  5                                  10                                  15

1268

Arg Ile Thr Gln Arg Lys Lys Gln Glu Gln Leu Thr Pro Gly Val Val  
 20 25 30

Tyr Val Arg His Leu Pro Asn Leu Leu Asp Glu Thr Gln Ile Phe Ser  
 35 40 45

Tyr Phe Ser Gln Phe Gly Thr Val Thr Arg Phe Arg Leu Ser Arg Ser  
 50 55 60

Lys Arg Thr Gly Asn Ser Lys Gly Tyr Ala Phe Val Glu Phe Glu Ser  
 65 70 75 80

Glu Asp Val Ala Lys Ile Val Ala Glu Thr Met Asn Asn Tyr Leu Phe  
 85 90 95

Gly Glu Arg Leu Leu Glu Cys His Phe Met Pro Pro Glu Lys Val His  
 100 105 110

Lys Glu Leu Phe Lys Asp Trp Asn Ile Pro Phe Lys Gln Pro Ser Tyr  
 115 120 125

Pro Ser Val Lys Arg Tyr Asn Arg Asn Arg Thr Leu Thr Gln Lys Leu  
 130 135 140

Arg Met Glu Glu Arg Phe Lys Lys Lys Glu Arg Leu Leu Arg Lys Lys  
 145 150 155 160

Leu Ala Lys Lys Gly Ile Asp Tyr Asp Phe Pro Ser Leu Ile Leu Gln  
 165 170 175

Lys Thr Glu Ser Ile Ser Lys Thr Asn Arg Gln Thr Ser Thr Lys Gly  
 180 185 190

Gln Val Leu Arg Lys Lys Lys Lys Lys Val Ser Gly Thr Leu Asp Thr  
 195 200 205

Pro Glu Lys Thr Val Asp Ser Gln Gly Pro Thr Pro Val Cys Thr Pro  
 210 215 220

Thr Phe Leu Glu Arg Arg Lys Ser Gln Val Ala Glu Leu Asn Asp Asp  
 225 230 235 240

Asp Lys Asp Asp Glu Ile Val Phe Lys Gln Pro Ile Ser Cys Val Lys  
 245 250 255

Glu Glu Ile Gln Glu Thr Gln Thr Pro Thr His Ser Arg Lys Lys Arg  
 260 265 270

Arg Arg Ser Ser Asn Gln  
 275

1269

&lt;210&gt; 1246

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1246

Ser Pro Pro Pro Leu Ser Leu Ile Leu Leu Ser Pro Ile Lys Ala Lys  
 1 5 10 15

Tyr Gly Leu Thr Thr Ser Pro Lys Ser Val Leu Arg Pro Ser Leu Cys  
 20 25 30

Leu Cys Ala Leu Leu Gly Val Ser Gln Arg Ser Gly Gln Asp Cys Ala  
 35 40 45

Gly Pro Ala Ser Pro Cys Ala Ser Gln Glu His Arg Gln Gly Val Leu  
 50 55 60

Val Ala Val Ala Gly His Leu Ser Pro Ser Ser Leu Leu Asn Val Leu  
 65 70 75 80

Thr Ala Arg Gly Asn Gly Val Ser Phe Pro Thr Lys Lys Pro Leu Leu  
 85 90 95

Tyr Ile Phe Xaa Leu Gln Ser His Arg Leu Gln Thr Thr Leu Leu Phe  
 100 105 110

Phe Met Asp Phe Ser Ala His Phe Arg  
 115 120

&lt;210&gt; 1247

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1247

Ile Phe His Arg Val Leu Leu Cys Asp Leu Asn Phe Ser Leu Gly Pro  
 1 5 10 15

Ala Ser Asp Ile Val Gly Gly Leu Ser Trp Phe Gln Glu Ile Arg Leu  
 20 25 30

1270

Ala Phe Ser Ser  
35

&lt;210&gt; 1248

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1248

Trp Ile Pro Arg Ala Cys Arg Glu Phe Gly Thr Arg Phe Gly Gly Val  
1 5 10 15

Thr Arg Gly Phe Asn Met Arg Ile Glu Lys Cys Tyr Phe Cys Ser Gly  
20 25 30

Pro Ile Tyr Pro Gly His Gly Met Met Phe Val Arg Asn Asp Cys Lys  
35 40 45

Val Phe Arg Phe Cys Lys Ser Lys Cys His Lys Asn Phe Lys Lys Lys  
50 55 60

Arg Asn Pro Arg Lys Val Arg Trp Thr Lys Ala Phe Arg Lys Ala Ala  
65 70 75 80

Gly Lys Glu Leu Thr Val Asp Asn Ser Phe Glu Phe Glu Lys Arg Arg  
85 90 95

Asn Glu Pro Ile Lys Tyr Gln Arg Glu Leu Trp Asn Lys Thr Ile Asp  
100 105 110

Ala Met Lys Arg Val Glu Glu Ile Lys Gln Lys Arg Gln Ala Lys Phe  
115 120 125

Ile Met Asn Arg Leu Lys Lys Asn Lys Glu Leu Gln Lys Val Gln Asp  
130 135 140

Ile Lys Glu Val Lys Gln Asn Ile His Leu Ile Arg Ala Pro Leu Ala  
145 150 155 160

Gly Lys Gly Lys Gln Leu Glu Glu Lys Met Val Gln Gln Leu Gln Glu  
165 170 175

Asp Val Asp Met Glu Asp Ala Pro  
180

&lt;210&gt; 1249

&lt;211&gt; 188

1271

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1249

Gly Cys Pro Ala His Ser Pro Gly Ser Ala Lys Arg Trp Thr Gln Ala  
 1 5 10 15

Ala Met Ser Arg Pro Arg Met Arg Leu Val Val Thr Ala Asp Asp Phe  
 20 25 30

Gly Tyr Cys Pro Arg Arg Asp Glu Gly Ile Val Glu Ala Phe Leu Ala  
 35 40 45

Gly Ala Val Thr Ser Val Ser Leu Leu Val Asn Gly Ala Ala Thr Glu  
 50 55 60

Ser Ala Ala Glu Leu Ala Arg Arg His Ser Ile Pro Thr Gly Leu His  
 65 70 75 80

Ala Asn Leu Ser Glu Gly Arg Pro Val Gly Pro Ala Arg Arg Gly Ala  
 85 90 95

Ser Ser Leu Leu Gly Pro Glu Xaa Phe Phe Leu Gly Lys Met Gly Phe  
 100 105 110

Arg Glu Ala Val Ala Ala Gly Asp Val Asp Leu Pro Gln Val Arg Ser  
 115 120 125

Arg Ser Tyr Arg Arg Met Leu Ala Arg Thr Pro Arg Ala Pro Pro Gly  
 130 135 140

Gly Thr Val Arg Pro Leu Glu Leu Ala Val Asp Asp Phe Arg Ile Gln  
 145 150 155 160

Thr Leu Glu Pro Ser His Gly Ser Thr Arg Arg Val Ser Ser Ala Ala  
 165 170 175

Thr Pro Gly Arg Ser Arg Cys Leu Ser Leu Ala Leu  
 180 185

&lt;210&gt; 1250

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1272

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1250

Arg	Lys	Asn	Leu	Glu	Ile	Tyr	Glu	Ala	Val	Thr	Ser	Pro	Gln	Gly	Pro
1			5						10					15	

Ala	Met	Thr	Trp	Ser	Met	Phe	Ala	Val	Gly	Trp	Met	Glu	Leu	Lys	Asp
		20						25					30		

Ala	Cys	Gly	Xaa	Arg	Gly	Leu	Leu	Asp	Arg	Ser	Phe	Ala	Asn	Met	Ala
		35				40						45			

Glu	Pro	Phe	Lys	Val	Trp	Thr	Glu	Asn	Ala	Asp	Gly	Ser	Gly	Ala	Val
	50					55					60				

Asn	Phe	Leu	Thr	Gly	Met	Gly	Gly	Phe	Leu	Gln	Ala	Val	Val	Phe	Gly
65					70					75					80

Cys	Thr	Gly	Phe	Arg	Val	Ser	Val	Ser	Gly	Ile	Phe	Tyr	Gln	Gly	Xaa
				85					90					95	

Xaa	Leu	Asn	Phe	Xaa	Phe	Ser	Glu	Asp	Ser	Val	Thr	Val	Glu	Val	Thr
			100					105					110		

Ala	Arg	Ala	Gly	Pro	Trp	Ala	Pro	His	Leu	Glu	Ala	Glu	Leu	Trp	Pro
		115					120					125			

Ser	Gln	Ser	Arg	Leu	Ser	Leu	Leu	Pro	Gly	His	Lys	Val	Ser	Phe	Pro
	130					135					140				

Arg	Ser	Ala	Gly	Arg	Ile	Gln	Met	Ser	Pro	Pro	Lys	Leu	Pro	Gly	Ser
145					150					155				160	



1273

Ser Ser Ser Glu Phe Pro Gly Arg Thr Phe Ser Asp Val Arg Asp Pro  
                   165                                  170                                  175

Leu Gln Ser Pro Leu Trp Val Thr Leu Gly Ser Ser Ser Pro Thr Glu  
                   180                                  185                                  190

Ser Leu Thr Val Asp Pro Ala Ser Glu  
                   195                                  200

<210> 1251

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1251

Ser Val Gly Ser Val Ala Ala Ala Thr Arg Thr Gly Pro Val Ser Xaa  
   1                                  5                                  10                                  15

Lys Lys Phe Arg Glu Ala Ser Trp Arg Phe Thr Phe Tyr Leu Ile Ala  
                   20                                  25                                  30

Phe Ile Ala Gly Met Ala Val Ile Val Asp Lys Pro Trp Phe Tyr Asp  
                   35                                  40                                  45

Met Lys Lys Val Trp Glu Gly Tyr Pro Ile Gln Ser Thr Ile Pro Ser  
                   50                                  55                                  60

Gln Tyr Trp Tyr Tyr Met Ile Glu Leu Ser Phe Tyr Trp Ser Leu Leu  
   65                                  70                                  75                                  80

Phe Ser Ile Ala Ser Asp Val Lys Arg Lys Asp Phe Lys Glu Gln Ile  
                                   85                                  90                                  95

Ile His His Val Ala Thr Ile Ile Leu Ile Ser Phe Ser Trp Phe Ala  
                   100                                  105                                  110

Asn Tyr Ile Arg Ala Gly Thr Leu Ile Met Ala Leu His Asp Ser Ser  
                   115                                  120                                  125

Asp Tyr Leu Leu Glu Ser Ala Lys Met Phe Asn Tyr Ala Gly Trp Lys  
                   130                                  135                                  140

Asn Thr Cys Asn Asn Ile Phe Ile Val Phe Ala Ile Val Phe Ile Ile

1274

145		150		155		160
Thr Arg Leu Val	Ile Leu Pro Phe Trp	Ile Leu His Cys Thr	Leu Val			
	165	170	175			
Tyr Pro Leu Glu	Leu Tyr Pro Ala Phe	Phe Gly Tyr Tyr	Phe Phe Asn			
	180	185	190			
Ser Met Met Gly	Val Leu Gln Leu Leu His	Ile Phe Trp Ala Tyr	Leu			
	195	200	205			
Ile Leu Arg Met	Ala His Lys Phe Ile Thr	Gly Lys Leu Val	Glu Asp			
	210	215	220			
Glu Arg Ser Asp	Arg Glu Glu Thr Glu Ser	Ser Glu Gly Glu Glu	Ala			
225	230	235	240			
Ala Ala Gly Gly	Gly Ala Lys Ser Arg Pro	Leu Ala Asn Gly	His Pro			
	245	250	255			
Ile Leu Asn Asn	Asn His Arg Lys Asn	Asp				
	260	265				

&lt;210&gt; 1252

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1252

Lys Met Gly Thr	Asn Lys Cys Ala Ser	Gln Ala Gly Met	Thr Ala Tyr
1	5	10	15
Gly Thr Arg Arg	His Leu Tyr Asp	Pro Lys Met Gln	Thr Asp Lys Pro
	20	25	30
Phe Asp Gln Thr	Thr Ile Ser Leu Gln	Met Gly Thr Asn	Lys Gly Ala
	35	40	45
Ser Gln Ala Gly	Met Leu Ala Pro Gly	Thr Arg Arg Asp	Ile Tyr Asp
	50	55	60
Gln Lys Leu Thr	Leu Gln Pro Val Asp	Asn Ser Thr Ile	Ser Leu Gln
	65	70	75
Met Gly Thr Asn	Lys Val Ala Ser Gln	Lys Gly Met Ser	Val Tyr Gly
	85	90	95
Leu Gly Arg Gln	Val Tyr Asp Pro Lys	Tyr Cys Ala Ala	Pro Thr Glu
	100	105	110

1275

Pro Val Ile His Asn Gly Ser Gln Gly Thr Gly Thr Asn Gly Ser Glu  
           115                          120                          125

Ile Ser Asp Ser Asp Tyr Gln Ala Glu Tyr Pro Asp Glu Tyr His Gly  
       130                          135                          140

Glu Tyr Gln Asp Asp Tyr Pro Arg Asp Tyr Gln Tyr Ser Asp Gln Gly  
       145                          150                          155                          160

Ile Asp Tyr

<210> 1253

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1253

Leu Glu Glu Thr Pro Cys Leu Arg Thr Ala Val Ala Cys Glu Gln Arg  
       1                          5                          10                          15

Asp Pro Gly Thr Glu Ser Gln Pro Arg Arg Cys Cys Arg Arg Arg Arg  
                           20                          25                          30

Pro Glu Thr Ala Glu Pro Val Arg Pro Pro Pro Pro Pro Thr Pro Asp  
                           35                          40                          45

Thr Glu His Pro Val Met Asp Lys Asn Glu Leu Val Gln Lys Ala Lys  
       50                          55                          60

Leu Ala Glu Gln Ala Glu Arg Tyr Asp Asp Met Ala Ala Cys Met Lys  
       65                          70                          75                          80

Ser Val Thr Glu Gln Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu  
                           85                          90                          95

Leu Ser Val Ala Tyr Lys Asn Val Val Gly Ala Arg Xaa Ser Ser Trp  
                           100                          105                          110

Arg Val Val Ser Ser Ile Glu Gln Lys Thr Glu Gly Ala Glu Lys Lys  
                           115                          120                          125

Gln Gln Met Ala Arg Glu Tyr Arg Glu Lys Ile Glu Thr Glu Leu Arg

1276

130                      135                      140  
 Asp Ile Cys Asn Asp Val Leu Ser Leu Leu Glu Lys Phe Leu Ile Pro  
 145                      150                      155                      160  
 Asn Ala Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly  
                     165                      170                      175  
 Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Asp Lys Lys  
                     180                      185                      190  
 Gly Ile Val Asp Gln Ser Gln Gln Ala Tyr Gln Glu Ala Phe Glu Ile  
                     195                      200                      205  
 Ser Lys Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu Ala  
                     210                      215                      220  
 Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Lys  
 225                      230                      235                      240  
 Ala Cys Ser Leu Ala Lys Thr Ala Phe Asp Glu Ala Ile Ala Glu Leu  
                     245                      250                      255  
 Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln  
                     260                      265                      270  
 Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Thr Gln Gly Asp  
                     275                      280                      285  
 Glu Ala Glu Ala Gly Glu Gly Gly Glu Asn  
                     290                      295

&lt;210&gt; 1254

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1254

Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile  
   1                    5                    10                    15  
 Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly  
                     20                    25                    30  
 Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala  
                     35                    40                    45  
 Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val  
                     50                    55                    60

1277

Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly  
 65 70 75 80  
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala  
 85 90 95  
 Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu  
 100 105 110  
 Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser  
 115 120 125  
 Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys  
 130 135 140  
 Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu  
 145 150 155 160  
 Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn  
 165 170

&lt;210&gt; 1255

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1255

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala  
 1 5 10 15  
 Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg  
 20 25 30  
 Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly  
 35 40 45  
 Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys  
 50 55 60  
 Arg Leu  
 65

&lt;210&gt; 1256

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1278

&lt;400&gt; 1256

Ala Glu Ala Gly Pro Gly Ala Arg Ala Ala Ala Met Ala Ile Lys  
 1 5 10 15  
 Phe Leu Glu Val Ile Lys Pro Phe Cys Val Ile Leu Pro Glu Ile Gln  
 20 25 30  
 Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys Val Leu Trp Thr Ala  
 35 40 45  
 Ile Thr Leu Phe Ile Phe Leu Val Cys Cys Gln Ile Pro Leu Phe Gly  
 50 55 60  
 Ile Met Ser Ser Asp Ser Ala Asp Pro Phe Tyr Trp Met Arg Val Ile  
 65 70 75 80  
 Leu Ala Ser Asn Arg Gly Thr Leu Met Glu Leu Gly Ile Ser Pro Ile  
 85 90 95  
 Val Thr Ser Gly Leu Ile Met Gln Leu Leu Ala Gly Ala Lys Ile Ile  
 100 105 110  
 Glu Val Gly Asp Thr Pro Lys Asp Arg Ala Leu Phe Asn Gly Ala Gln  
 115 120 125  
 Lys Leu Phe Gly Met Ile Ile Thr Ile Gly Gln Ser Ile Val Tyr Val  
 130 135 140  
 Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly Ala Gly Ile Cys  
 145 150 155 160  
 Leu Leu Ile Thr Ile Gln Leu Phe Val Ala Gly Leu Ile Val Leu Leu  
 165 170 175  
 Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly Ser Gly Ile Ser  
 180 185 190  
 Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val Trp Lys Ala Phe  
 195 200 205  
 Ser Pro Thr Thr Val Asn Thr Gly Arg Gly Met Glu Phe Glu Gly Ala  
 210 215 220  
 Ile Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr Asp Lys Val Arg  
 225 230 235 240  
 Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro Asn Leu Met Asn  
 245 250 255  
 Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile Tyr Phe Gln Gly

1279

260	265	270
Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr Arg Gly Gln Tyr		
275	280	285
Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn Ile Pro Ile Ile		
290	295	300
Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile Ser Gln Met Leu		
305	310	315
Ser Ala Arg Phe Ser Gly Asn Leu Leu Val Ser Leu Leu Gly Thr Trp		
325	330	335
Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr Pro Val Gly Gly		
340	345	350
Leu Cys Tyr Tyr Leu Ser Pro Pro Trp Ser Met Asn Ser Thr Gly Thr		
355	360	365
Ser Pro Gln Pro Arg Pro Leu Val Gly Cys Ala Ser Gly Pro Ser Arg		
370	375	380
Ser Trp Leu Thr Ser		
385		

&lt;210&gt; 1257

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1257

Gly Xaa Pro Ser Ser Ser Arg Ala His Ser Pro Met Ile Ala Val Gly
1 5 10 15
Ser Asp Asp Ser Ser Pro Asn Ala Met Ala Lys Val Gln Ile Phe Glu
20 25 30
Tyr Asn Glu Asn Thr Arg Lys Tyr Ala Lys Ala Glu Thr Leu Met Thr
35 40 45
Val Thr Asp Pro Val His Asp Ile Ala Phe Ala Pro Asn Leu Gly Arg
50 55 60

1280

Ser Phe His Ile Leu Ala Ile Ala Thr Lys Asp Val Arg Ile Phe Thr  
 65 70 75 80  
 Leu Lys Pro Val Arg Lys Glu Leu Thr Ser Ser Gly Gly Pro Thr Lys  
 85 90 95  
 Phe Glu Ile His Ile Val Ala Gln Phe Asp Asn His Asn Ser Gln Val  
 100 105 110  
 Trp Arg Val Ser Trp Asn Ile Thr Gly Thr Val Leu Ala Ser Ser Gly  
 115 120 125  
 Asp Asp Gly Cys Val Arg Leu Trp Lys Ala Asn Tyr Met Asp Asn Trp  
 130 135 140  
 Lys Cys Thr Gly Ile Leu Lys Gly Asn Gly Ser Pro Val Asn Gly Ser  
 145 150 155 160  
 Ser Gln Gln Gly Thr Ser Asn Pro Ser Leu Gly Ser Asn Ile Pro Ser  
 165 170 175  
 Leu Gln Asn Ser Leu Asn Gly Ser Ser Ala Gly Arg Lys His Ser  
 180 185 190

&lt;210&gt; 1258

&lt;211&gt; 458

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1258

Pro Gly Ala Arg His Gly Ser Ala Ser Ala Pro Thr Leu Phe Pro Leu  
 1 5 10 15  
 Val Ser Cys Glu Asn Ser Pro Ser Asp Thr Ser Ser Val Ala Val Gly  
 20 25 30  
 Cys Leu Ala Gln Asp Phe Leu Pro Asp Ser Ile Thr Phe Ser Trp Lys  
 35 40 45  
 Tyr Lys Asn Asn Ser Asp Ile Ser Ser Thr Arg Gly Phe Pro Ser Val  
 50 55 60  
 Leu Arg Gly Gly Lys Tyr Ala Ala Thr Ser Gln Val Leu Leu Pro Ser  
 65 70 75 80  
 Lys Asp Val Met Gln Gly Thr Asp Glu His Val Val Cys Lys Val Gln  
 85 90 95  
 His Pro Asn Gly Asn Lys Glu Lys Asn Val Pro Leu Pro Val Ile Ala



1281

100					105					110					
Glu	Leu	Pro	Pro	Lys	Val	Ser	Val	Phe	Val	Pro	Pro	Arg	Asp	Gly	Phe
115					120					125					
Phe	Gly	Asn	Pro	Arg	Lys	Ser	Lys	Leu	Ile	Cys	Gln	Ala	Thr	Gly	Phe
130					135					140					
Ser	Pro	Arg	Gln	Ile	Gln	Val	Ser	Trp	Leu	Arg	Glu	Gly	Lys	Gln	Val
145					150					155					160
Gly	Ser	Gly	Val	Thr	Thr	Asp	Gln	Val	Gln	Ala	Glu	Ala	Lys	Glu	Ser
165					170					175					
Gly	Pro	Thr	Thr	Tyr	Lys	Val	Thr	Ser	Thr	Leu	Thr	Ile	Lys	Glu	Ser
180					185					190					
Asp	Trp	Leu	Ser	Gln	Ser	Met	Phe	Thr	Cys	Arg	Val	Asp	His	Arg	Gly
195					200					205					
Leu	Thr	Phe	Gln	Gln	Asn	Ala	Ser	Ser	Met	Cys	Val	Pro	Asp	Gln	Asp
210					215					220					
Thr	Ala	Ile	Arg	Val	Phe	Ala	Ile	Pro	Pro	Ser	Phe	Ala	Ser	Ile	Phe
225					230					235					240
Leu	Thr	Lys	Ser	Thr	Lys	Leu	Thr	Cys	Leu	Val	Thr	Asp	Leu	Thr	Thr
245					250					255					
Tyr	Asp	Ser	Val	Thr	Ile	Ser	Trp	Thr	Arg	Gln	Asn	Gly	Glu	Ala	Val
260					265					270					
Lys	Thr	His	Thr	Asn	Ile	Ser	Glu	Ser	His	Pro	Asn	Ala	Thr	Phe	Ser
275					280					285					
Ala	Val	Gly	Glu	Ala	Ser	Ile	Cys	Glu	Asp	Asp	Trp	Asn	Ser	Gly	Glu
290					295					300					
Arg	Phe	Thr	Cys	Thr	Val	Thr	His	Thr	Asp	Leu	Pro	Ser	Pro	Leu	Lys
305					310					315					320
Gln	Thr	Ile	Ser	Arg	Pro	Lys	Gly	Val	Ala	Leu	His	Arg	Pro	Asp	Val
325					330					335					
Tyr	Leu	Leu	Pro	Pro	Ala	Arg	Glu	Gln	Leu	Asn	Leu	Arg	Glu	Ser	Ala
340					345					350					
Thr	Ile	Thr	Cys	Leu	Val	Thr	Gly	Phe	Ser	Pro	Ala	Asp	Val	Phe	Val
355					360					365					
Gln	Trp	Met	Gln	Arg	Gly	Gln	Pro	Leu	Ser	Pro	Glu	Lys	Tyr	Val	Thr

1282

370	375	380
Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala His		
385	390	395 400
Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr Tyr		
405	410	415
Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu Arg		
420	425	430
Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser Leu		
435	440	445
Val Met Ser Asp Thr Ala Gly Thr Cys Tyr		
450	455	

&lt;210&gt; 1259

&lt;211&gt; 247

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1259

Ala Gly Pro Ala Pro Glu Glu Pro Arg Gly Gly Ala Ala Ala Arg Trp		
1	5	10 15
Asp Cys Gln Pro Cys Gln Ala Ala Xaa Val Val Glu Asn Ser Ala Gln		
20	25	30
Arg Val Ile His Leu Ala Gly Gln Trp Glu Lys His Arg Val Pro Leu		
35	40	45
Leu Ala Glu Tyr Arg His Leu Arg Lys Leu Gln Asp Cys Arg Glu Leu		
50	55	60
Glu Ser Ser Arg Arg Leu Ala Glu Ile Gln Glu Leu His Gln Ser Val		
65	70	75 80
Arg Ala Ala Ala Glu Glu Ala Arg Arg Lys Glu Glu Val Tyr Lys Gln		
85	90	95
Leu Met Ser Glu Leu Glu Thr Leu Pro Arg Asp Val Ser Arg Leu Ala		
100	105	110

1283

Tyr Thr Gln Arg Ile Leu Glu Ile Val Gly Asn Ile Arg Lys Gln Lys  
           115                          120                          125  
 Glu Glu Ile Thr Lys Ile Leu Ser Asp Thr Lys Glu Leu Gln Lys Glu  
           130                          135                          140  
 Ile Asn Ser Leu Ser Gly Lys Leu Asp Arg Thr Phe Ala Val Thr Asp  
 145                          150                          155                          160  
 Glu Leu Val Phe Lys Asp Ala Lys Lys Asp Asp Ala Val Arg Lys Ala  
                           165                          170                          175  
 Tyr Lys Tyr Leu Ala Ala Leu His Glu Asn Cys Ser Gln Leu Ile Gln  
                           180                          185                          190  
 Thr Ile Glu Asp Thr Gly Thr Ile Met Arg Glu Val Arg Asp Leu Glu  
           195                          200                          205  
 Glu Gln Ile Glu Thr Glu Leu Gly Lys Lys Thr Leu Ser Asn Leu Glu  
           210                          215                          220  
 Lys Ile Arg Glu Asp Tyr Arg Ala Leu Arg Gln Glu Asn Ala Gly Leu  
 225                          230                          235                          240  
 Leu Gly Arg Val Arg Glu Ala  
                           245

<210> 1260  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 1260  
 Val Gly Ile Lys Trp Ile Glu Glu Ala Val Leu Cys Ala Asn Val Ser  
   1                          5                          10                          15  
 Phe Ala Ser Asp Arg Tyr Leu Phe Val Ile Arg Arg Val Ala Ser Phe  
           20                          25                          30  
 His Leu Gly Ala Glu Asn Ser Arg Gln Leu Leu Thr Asp Lys Phe Asn  
           35                          40                          45  
 Leu His Leu Gln Tyr Cys Met Leu Gly Ile Ser Ala Tyr Phe  
           50                          55                          60

<210> 1261  
 <211> 243

1284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (210)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (226)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1261

Gln	Glu	Arg	Pro	Gly	Asn	Phe	Tyr	Val	Ser	Ser	Glu	Ser	Ile	Arg	Lys
1				5					10					15	

Gly	Pro	Pro	Val	Arg	Pro	Trp	Arg	Asp	Arg	Pro	Gln	Ser	Ser	Ile	Tyr
			20					25					30		

Asp	Pro	Phe	Ala	Gly	Met	Lys	Thr	Pro	Gly	Gln	Arg	Gln	Leu	Ile	Thr
		35					40					45			

Leu	Gln	Glu	Gln	Val	Lys	Leu	Gly	Ile	Val	Asn	Val	Asp	Glu	Ala	Val
	50					55					60				

Leu	His	Phe	Lys	Glu	Trp	Gln	Leu	Asn	Gln	Lys	Xaa	Arg	Ser	Glu	Ser
65					70					75					80

Phe	Arg	Phe	Gln	Gln	Glu	Asn	Leu	Lys	Arg	Leu	Arg	Asp	Ser	Ile	Thr
			85						90					95	

Arg	Arg	Gln	Arg	Glu	Lys	Gln	Lys	Ser	Gly	Lys	Gln	Thr	Asp	Leu	Glu
		100						105					110		

Ile	Thr	Val	Pro	Ile	Arg	His	Ser	Gln	His	Leu	Pro	Ala	Lys	Val	Glu
	115						120					125			

Phe	Gly	Val	Tyr	Glu	Ser	Gly	Pro	Arg	Lys	Ser	Val	Ile	Pro	Pro	Arg
	130					135					140				

Thr	Glu	Leu	Arg	Arg	Gly	Asp	Trp	Lys	Thr	Asp	Ser	Thr	Ser	Ser	Thr
145					150					155					160

Ala	Ser	Ser	Thr	Ser	Asn	Arg	Ser	Ser	Thr	Arg	Ser	Leu	Leu	Ser	Val
			165						170					175	

1285

Ser Ser Gly Met Glu Gly Asp Asn Glu Asp Asn Glu Val Pro Glu Val  
 180 185 190

Thr Arg Ser Arg Ser Pro Gly Pro Pro Gln Val Asp Gly Thr Pro Thr  
 195 200 205

Met Xaa Leu Glu Arg Pro Pro Arg Val Pro Pro Arg Ala Ala Ser Gln  
 210 215 220

Arg Xaa Pro Thr Arg Glu Thr Phe His Pro Pro Pro Pro Val Pro Pro  
 225 230 235 240

Arg Gly Arg

<210> 1262

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1262

Lys Tyr Val Arg Asn Asp Gln Asn Lys Arg Lys Phe Leu Phe Ser Cys  
 1 5 10 15

Lys Tyr Phe Ser Ser Val Ile Thr Leu Lys Tyr Lys Leu Lys Tyr Asn  
 20 25 30

Thr Pro Glu Cys Leu Arg His Asp Leu Asp Phe Lys Cys Val Val Phe  
 35 40 45

Ile Glu Lys Lys Leu Ser Thr His Leu Val Phe Gln Glu Asn Leu Lys  
 50 55 60

Arg Ser Gln Gly Lys Met Ile Cys Met Leu Lys  
 65 70 75

<210> 1263

<211> 475

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

1286

&lt;400&gt; 1263

Arg	Thr	Gly	Leu	Gly	Arg	Asp	Val	Gly	Ala	Gly	Ala	Arg	Arg	Ala	Ala	1	5	10	15
Arg	Cys	Arg	Ala	Glu	Ala	Ala	Ala	Ala	Val	Gly	Thr	Ala	Arg	Ser	Pro	20	25	30	
Ala	Leu	Gly	Met	Ala	Leu	Leu	Val	Leu	Gly	Leu	Val	Ser	Cys	Thr	Phe	35	40	45	
Phe	Leu	Ala	Val	Asn	Gly	Leu	Tyr	Ser	Ser	Ser	Asp	Asp	Val	Ile	Glu	50	55	60	
Leu	Thr	Pro	Ser	Asn	Phe	Asn	Arg	Glu	Val	Ile	Gln	Ser	Asp	Ser	Leu	65	70	75	80
Trp	Leu	Val	Glu	Phe	Tyr	Ala	Pro	Trp	Cys	Gly	His	Cys	Gln	Arg	Leu	85	90	95	
Thr	Pro	Glu	Trp	Lys	Lys	Ala	Ala	Thr	Ala	Leu	Lys	Asp	Val	Val	Lys	100	105	110	
Val	Gly	Ala	Val	Asp	Ala	Asp	Lys	His	His	Ser	Leu	Gly	Gly	Gln	Tyr	115	120	125	
Gly	Val	Gln	Gly	Phe	Pro	Thr	Ile	Lys	Ile	Phe	Gly	Ser	Asn	Lys	Asn	130	135	140	
Arg	Pro	Glu	Asp	Tyr	Gln	Gly	Gly	Arg	Thr	Gly	Glu	Ala	Ile	Val	Asp	145	150	155	160
Ala	Ala	Leu	Ser	Ala	Leu	Arg	Gln	Leu	Val	Lys	Asp	Arg	Leu	Gly	Gly	165	170	175	
Arg	Ser	Gly	Gly	Tyr	Ser	Ser	Gly	Lys	Gln	Gly	Arg	Ser	Asp	Ser	Ser	180	185	190	
Ser	Lys	Lys	Asp	Val	Ile	Glu	Leu	Thr	Asp	Asp	Ser	Phe	Asp	Lys	Asn	195	200	205	
Val	Leu	Asp	Ser	Glu	Asp	Val	Trp	Met	Val	Glu	Phe	Tyr	Ala	Pro	Trp	210	215	220	
Cys	Gly	His	Cys	Lys	Asn	Leu	Glu	Pro	Glu	Trp	Ala	Ala	Ala	Ala	Ser	225	230	235	240
Glu	Val	Lys	Glu	Gln	Thr	Lys	Gly	Xaa	Val	Lys	Leu	Ala	Ala	Val	Asp	245	250	255	
Ala	Thr	Val	Asn	Gln	Val	Leu	Ala	Ser	Arg	Tyr	Gly	Ile	Arg	Gly	Phe	260	265	270	

1287

Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp  
275 280 285

Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe  
290 295 300

Ser Asp Asn Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp  
305 310 315 320

Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val  
325 330 335

Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu  
340 345 350

Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly  
355 360 365

Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu  
370 375 380

Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg  
385 390 395 400

Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile  
405 410 415

Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro  
420 425 430

Val Gly Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp  
435 440 445

Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp  
450 455 460

Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu  
465 470 475

&lt;210&gt; 1264

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; xaa equals any of the naturally occurring L-amino acids

1288

&lt;400&gt; 1264

His Phe Glu Arg Thr Ser Ser Lys Arg Val Ser Arg Ser Leu Asp Gly  
 1 5 10 15

Ala Pro Ile Gly Val Met Asp Gln Ser Leu Met Xaa Asp Phe Pro Gly  
 20 25 30

Ala Ala Gly Glu Ile Ser Ala Tyr Gly Pro Gly Leu Val Ser Ile Ala  
 35 40 45

Val Val Gln Asp Gly Asp Gly Arg Arg Glu Val Arg Ser Pro Thr Lys  
 50 55 60

Ala Pro His Leu Gln Leu Ile Glu Gly Lys Ser Ser His Glu Thr Leu  
 65 70 75 80

Asn Ile Val Glu Glu Lys Lys Arg Ala Glu Val Gly Lys Asp Glu Arg  
 85 90 95

Val Ile Thr Glu Glu Met Asn Gly Lys Glu Ile Ser Pro Gly Ser Gly  
 100 105 110

Pro Gly Glu Ile Arg Lys Val Glu Pro Val Thr Gln Lys Asp Ser Thr  
 115 120 125

Ser Leu Ser Ser Glu Ser Ser Ser Ser Ser Ser Glu Ser Glu Glu Glu  
 130 135 140

Asp Val Gly Glu Tyr Arg Pro His His Arg Val Thr Glu Gly Thr Ile  
 145 150 155 160

Arg Glu Glu Gln Glu Tyr Glu Glu Glu Val Glu Glu Glu Pro Arg Pro  
 165 170 175

Ala Ala Lys Val Val Glu Arg Glu Glu Ala Val Pro Glu Ala Ser Pro  
 180 185 190

Val Thr Gln Ala Gly Ala Ser Val Ile Thr Val Glu Thr Val Ile Gln  
 195 200 205

Glu Asn Val Gly Ala Gln Lys Ile Pro Gly Glu Lys Ser Val His Glu  
 210 215 220

Gly Ala Leu Lys Gln Asp Met Gly Glu Glu Ala Glu Glu Glu Pro Gln  
 225 230 235 240

Lys Val Asn Gly Glu Val Ser His Val Asp Ile Asp Val Leu Pro Gln  
 245 250 255

Ile Ile Cys Cys Ser Glu Pro Pro Val Val Lys Thr Glu Met Val Thr



1289

260	265	270
Ile Ser Asp Ala Ser Gln Arg Thr Glu Ile Ser Thr Lys Glu Val Pro		
275	280	285
Ile Val Gln Thr Glu Thr Lys Thr Ile Thr Tyr Glu Ser Pro Gln Ile		
290	295	300
Asp Gly Gly Ala Gly Gly Asp Ser Gly Thr Leu Leu Thr Ala Gln Thr		
305	310	315
Ile Thr Ser Glu Ser Val Ser Thr Thr Thr Thr Thr His Ile Thr Lys		
325	330	335
Thr Val Lys Gly Gly Ile Ser Glu Thr Arg Ile Glu Lys Arg Ile Val		
340	345	350
Ile Thr Gly Asp Gly Asp Ile Asp His Asp Gln Ala Leu Ala Gln Ala		
355	360	365
Ile Arg Glu Ala Arg Glu Gln His Pro Asp Met Ser Val Thr Arg Val		
370	375	380
Val Val His Lys Glu Thr Glu Leu Ala Glu Glu Gly Glu Asp		
385	390	395

&lt;210&gt; 1265

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1265

Trp Thr Gly Thr Gly Arg Gly Ala Val Ala Ile Met Ala Asp Pro Asp
1                      5                      10                      15

Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser
20                      25                      30

Ser Val Ala Ser Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys
35                      40                      45

Val Tyr Ser Ile Leu Ser Leu Gln Val Leu Leu Thr Thr Val Thr Ser
50                      55                      60

1290

Thr Val Phe Leu Tyr Phe Glu Ser Val Arg Thr Phe Val His Glu Ser  
 65 70 75 80  
 Pro Ala Leu Ile Leu Leu Phe Ala Leu Gly Ser Leu Gly Leu Ile Phe  
 85 90 95  
 Ala Leu Xaa Leu Asn Arg His Lys Tyr Pro Leu Asn Leu Tyr Leu Leu  
 100 105 110  
 Phe Gly Phe Thr Leu Leu Glu Ala Leu Thr Val Ala Val Val Val Thr  
 115 120 125  
 Phe Tyr Asp Val Tyr Ile Ile Leu Gln Ala Phe Ile Leu Thr Thr Thr  
 130 135 140  
 Val Phe Phe Gly Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe  
 145 150 155 160  
 Ser Lys Phe Gly Ala Gly Leu Phe Ala Leu Leu Trp Ile Leu Cys Leu  
 165 170 175  
 Ser Gly Phe Leu Lys Phe Phe Phe Tyr Ser Glu Ile Met Glu Leu Val  
 180 185 190  
 Leu Ala Ala Ala Gly Ala Leu Leu Phe Trp Gly Ile His His Leu  
 195 200 205

&lt;210&gt; 1266

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1266

Ser Arg Asp Pro Asn Gly Trp Trp Arg Arg Leu Arg Val Ser Ala Glu  
 1 5 10 15  
 Leu Ala Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu  
 20 25 30  
 Ala Leu Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg  
 35 40 45  
 Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg  
 50 55 60  
 Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser  
 65 70 75 80  
 Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr

				85					90						95				
Leu	Thr	Lys	Glu	Glu	Cys	Leu	Lys	Lys	Cys	Ala	Thr	Val	Thr	Glu	Asn				
			100					105					110						
Ala	Thr	Gly	Asp	Leu	Ala	Thr	Ser	Arg	Asn	Ala	Ala	Asp	Ser	Ser	Val				
		115					120					125							
Pro	Ser	Ala	Pro	Arg	Arg	Gln	Asp	Ser	Glu	Asp	His	Ser	Ser	Asp	Met				
	130					135					140								
Phe	Asn	Tyr	Glu	Glu	Tyr	Cys	Thr	Ala	Asn	Ala	Val	Thr	Gly	Pro	Cys				
145					150					155					160				
Arg	Ala	Ser	Phe	Pro	Arg	Trp	Tyr	Phe	Asp	Val	Glu	Arg	Asn	Ser	Cys				
			165						170					175					
Asn	Asn	Phe	Ile	Tyr	Gly	Gly	Cys	Arg	Gly	Asn	Lys	Asn	Ser	Tyr	Arg				
		180						185					190						
Ser	Glu	Glu	Ala	Cys	Met	Leu	Arg	Cys	Phe	Arg	Gln	Gln	Glu	Asn	Pro				
	195						200					205							
Pro	Leu	Pro	Leu	Gly	Ser	Lys	Val	Val	Val	Leu	Ala	Gly	Leu	Phe	Val				
	210					215					220								
Met	Val	Leu	Ile	Leu	Phe	Leu	Gly	Ala	Ser	Met	Val	Tyr	Leu	Ile	Arg				
225					230					235					240				
Val	Ala	Arg	Arg	Asn	Gln	Glu	Arg	Ala	Leu	Arg	Thr	Val	Trp	Ser	Ser				
				245					250					255					
Gly	Asp	Asp	Lys	Glu	Gln	Leu	Val	Lys	Asn	Thr	Tyr	Val	Leu	Cys	Arg				
			260					265					270						
Pro	Val	Ala	Lys	Arg	Thr	Gly	Glu	Gly	Arg	Gly	Asp	Met	Cys	Asp	Phe				
		275					280					285							

<220>  
<221> SITE  
<222> (5)

1292

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1267

Arg	Gly	Arg	Arg	Xaa	Xaa	Ala	Ser	Leu	Arg	Gly	Trp	Pro	Val	Arg	Arg
1				5					10					15	

Gly	Met	Gly	Arg	Val	Gln	Leu	Phe	Glu	Ile	Ser	Leu	Ser	His	Gly	Arg
			20					25					30		

Val	Val	Tyr	Ser	Pro	Gly	Glu	Pro	Leu	Ala	Gly	Thr	Val	Arg	Val	Arg
		35					40					45			

Leu	Gly	Ala	Pro	Leu	Pro	Phe	Arg	Ala	Ile	Arg	Val	Thr	Cys	Ile	Gly
	50					55					60				

Ser	Cys	Gly	Val	Ser	Asn	Lys	Ala	Asn	Asp	Thr	Ala	Trp	Val	Val	Glu
65					70				75						80

Glu	Gly	Tyr	Phe	Asn	Ser	Ser	Leu	Ser	Leu	Ala	Asp	Lys	Gly	Ser	Leu
				85					90					95	

Pro	Ala	Gly	Glu	His	Ser	Phe	Pro	Phe	Gln	Phe	Leu	Leu	Pro	Ala	Thr
			100					105					110		

Ala	Pro	Thr	Ser	Phe	Glu	Gly	Pro	Phe	Gly	Lys	Ile	Val	His	Gln	Val
		115					120					125			

Arg	Ala	Ala	Ile	His	Thr	Pro	Arg	Phe	Ser	Lys	Asp	His	Lys	Cys	Ser
	130						135				140				

Leu	Val	Phe	Tyr	Ile	Leu	Ser	Pro	Leu	Asn	Leu	Asn	Ser	Ile	Pro	Asp
145					150				155					160	

Ile	Glu	Gln	Pro	Asn	Val	Ala	Ser	Ala	Thr	Lys	Lys	Phe	Ser	Tyr	Lys
			165						170					175	

Leu	Val	Lys	Thr	Gly	Ser	Val	Val	Leu	Thr	Ala	Ser	Thr	Asp	Leu	Arg
			180					185					190		

Gly	Tyr	Val	Val	Gly	Gln	Ala	Leu	Gln	Leu	His	Ala	Asp	Val	Glu	Asn
		195					200					205			

Gln	Ser	Gly	Lys	Asp	Thr	Ser	Pro	Val	Val	Ala	Ser	Leu	Leu	Gln	Lys
	210					215					220				

Val	Ser	Tyr	Lys	Ala	Lys	Arg	Trp	Ile	His	Asp	Val	Arg	Thr	Ile	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1293

225                      230                      235                      240  
 Glu Val Glu Gly Ala Gly Val Lys Ala Trp Arg Arg Ala Gln Trp His  
                          245                      250                      255  
 Glu Gln Ile Leu Val Pro Ala Leu Pro Gln Ser Ala Leu Pro Ala Ala  
                          260                      265                      270  
 Ala Ser Ser Thr Ser Thr Thr Thr Tyr Arg Ser Leu  
                          275                      280

<210> 1268  
 <211> 254  
 <212> PRT  
 <213> Homo sapiens

<400> 1268  
 Val Trp Leu Arg Val Glu Asn Val Cys Gln Gly Pro Gly Gln Glu Gly  
   1                      5                      10                      15  
 Gly Pro Pro Val Thr Met Val Ser Met Ser Phe Lys Arg Asn Arg Ser  
                          20                      25                      30  
 Asp Arg Phe Tyr Ser Thr Arg Cys Cys Gly Cys Cys His Val Arg Thr  
                          35                      40                      45  
 Gly Thr Ile Ile Leu Gly Thr Trp Tyr Met Val Val Asn Leu Leu Met  
   50                      55                      60  
 Ala Ile Leu Leu Thr Val Glu Val Thr His Pro Asn Ser Met Pro Ala  
   65                      70                      75                      80  
 Val Asn Ile Gln Tyr Glu Val Ile Gly Asn Tyr Tyr Ser Ser Glu Arg  
                          85                      90                      95  
 Met Ala Asp Asn Ala Cys Val Leu Phe Ala Val Ser Val Leu Met Phe  
                          100                      105                      110  
 Ile Ile Ser Ser Met Leu Val Tyr Gly Ala Ile Ser Tyr Gln Val Gly  
   115                      120                      125  
 Trp Leu Ile Pro Phe Phe Cys Tyr Arg Leu Phe Asp Phe Val Leu Ser  
   130                      135                      140  
 Cys Leu Val Ala Ile Ser Ser Leu Thr Tyr Leu Pro Arg Ile Lys Glu  
   145                      150                      155                      160  
 Tyr Leu Asp Gln Leu Pro Asp Phe Pro Tyr Lys Asp Asp Leu Leu Ala  
                          165                      170                      175

1294

Leu Asp Ser Ser Cys Leu Leu Phe Ile Val Leu Val Phe Phe Ala Leu  
180 185 190

Phe Ile Ile Phe Lys Ala Tyr Leu Ile Asn Cys Val Trp Asn Cys Tyr  
195 200 205

Lys Tyr Ile Asn Asn Arg Asn Val Pro Glu Ile Ala Val Tyr Pro Ala  
210 215 220

Phe Glu Ala Pro Pro Gln Tyr Val Leu Pro Thr Tyr Glu Met Ala Val  
225 230 235 240

Lys Met Pro Glu Lys Glu Pro Pro Pro Pro Tyr Leu Pro Ala  
245 250

<210> 1269

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1269

Lys Ser Ile Leu Val Ile Arg Val Tyr Phe Phe Tyr Arg Thr Arg Trp  
1 5 10 15

Xaa Gly Gly Glu Pro Phe Thr Leu Leu Val Lys Leu Asn His Arg Lys  
20 25 30

Phe Thr Ile Cys Leu Ser Gln Thr Leu Ala Val Arg Gly Met Val Ala

1295

	35					40								45	
Xaa	Ala	Cys	Xaa	Xaa	Pro	Ala	Cys	Trp	Gly	Gly	Pro	Ser	Trp	Gly	Gly
	50					55					60				

Leu Pro Glu  
65

<210> 1270

<211> 164

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1270

1296

Gly Ser Pro Gly Thr Xaa Arg Ile Pro Xaa Thr Arg Xaa Glu Thr Cys  
 1 5 10 15  
 Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr Glu  
 20 25 30  
 Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala Gly  
 35 40 45  
 Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly Gly  
 50 55 60  
 Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr Gly  
 65 70 75 80  
 Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu Trp  
 85 90 95  
 Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly Thr  
 100 105 110  
 Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp Met  
 115 120 125  
 Met Val Asp Cys Thr Cys Leu Gly Glu Xaa Ser Gly Arg Ile Thr Cys  
 130 135 140  
 Thr Ser Arg Asn Arg Cys Asn Xaa Gln Asp Thr Arg Thr Ser Ile Glu  
 145 150 155 160  
 Xaa Glu Thr Xaa

&lt;210&gt; 1271

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1271

Ala Arg Gly Ser Glu Cys Gly Gln Arg Ala Glu Ala Val Ser His Arg  
 1 5 10 15  
 Arg Arg Arg Arg Ala Gln Ala Ser Ser Phe Gly Trp Gly Ala Ala Glu  
 20 25 30  
 Leu Thr Ser Asp Ile Ser Ala Pro Phe Thr Arg Arg Asn Pro Gly Ala  
 35 40 45  
 Gly Ala Arg Ser Ala Gly Val Thr Met Thr Lys Ala Gly Ser Lys Gly



1297

50		55		60
Gly Asn Leu Arg Asp Lys Leu Asp Gly Asn Glu Leu Asp Leu Ser Leu				
65		70		75
Ser Asp Leu Asn Glu Val Pro Val Lys Glu Leu Ala Ala Leu Pro Lys				
	85		90	95
Ala Thr Ile Leu Asp Leu Ser Cys Asn Lys Leu Thr Thr Leu Pro Ser				
	100		105	110
Asp Phe Cys Gly Leu Thr His Leu Val Lys Leu Asp Leu Ser Lys Asn				
	115		120	125
Lys Leu Gln Gln Leu Pro Ala Asp Phe Gly Arg Leu Val Asn Leu Gln				
	130		135	140
His Leu Asp Leu Leu Asn Asn Lys Leu Val Thr Leu Pro Val Ser Phe				
	145		150	155
Ala Gln Leu Lys Asn Leu Lys Trp Leu Asp Leu Lys Asp Asn Pro Leu				
	165		170	175
Asp Pro Val Leu Ala Lys Val Ala Gly Asp Cys Leu Asp Glu Lys Gln				
	180		185	190
Cys Lys Gln Cys Ala Asn Lys Val Leu Gln His Met Lys Ala Val Gln				
	195		200	205
Ala Asp Gln Glu Arg Glu Arg Gln Arg Arg Leu Glu Val Glu Arg Glu				
	210		215	220
Ala Glu Lys Lys Arg Glu Ala Lys Gln Arg Ala Lys Glu Ala Gln Glu				
	225		230	235
Arg Glu Leu Arg Lys Arg Glu Lys Ala Glu Glu Lys Glu Arg Arg Arg				
	245		250	255
Lys Glu Tyr Asp Ala Leu Lys Ala Ala Lys Arg Glu Gln Glu Lys Lys				
	260		265	270
Pro Lys Lys Glu Ala Asn Gln Ala Pro Lys Ser Lys Ser Gly Ser Arg				
	275		280	285
Pro Arg Lys Pro Pro Pro Arg Lys His Thr Arg Ser Trp Ala Val Leu				
	290		295	300
Lys Leu Leu Leu Leu Leu Leu Phe Gly Val Ala Gly Gly Leu Val				
	305		310	315
Ala Cys Arg Val Thr Glu Leu Gln Gln Gln Pro Leu Cys Thr Ser Val				

1298

	325		330		335
Asn Thr Ile Tyr Asp Asn Ala Val Gln Gly Leu Arg Arg His Glu Ile					
	340		345		350
Leu Gln Trp Val Leu Gln Thr Asp Ser Gln Gln					
	355		360		

&lt;210&gt; 1272

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1272

Gly	Leu	Val	Met	Ala	Pro	Ile	Ala	Cys	Leu	Leu	Pro	Ala	Phe	Ser	Ser
1				5					10					15	

Ala	Pro	Glu	Ala	Met	His	Pro	Trp	Glu	Leu	Phe	Val	Lys	Tyr	Tyr	His
		20						25					30		

Ala	Lys	Asn	Gly	Arg	Ala	Tyr	Val	Glu	Ser	Pro	Ala	Arg	Lys	Leu	Ser
	35						40					45			

Gln	Ser	Phe	Ala	Leu	Pro	Val	Thr	Gly	Gly	Thr	Val	Val	Thr	Pro	Lys
	50					55					60				

Gln	Ser	Leu	Leu	Thr	Ala	Ile	His	Met	Val	Leu	Thr	Glu	His	Asp	Pro
65					70					75					80

Phe	Lys	Arg	Ser	Ala	Asp	Ser	Glu	Leu	Lys	Ala	Leu	Val	Cys	Met	Ala
				85					90					95	

Leu	Asn	Glu	Pro	Ala	Ser	Gly	Val	Leu	Gly	Glu	Pro	His	Leu	Gln	Xaa
			100					105						110	

1299

Arg Val Thr Xaa Arg Ala Ser Leu Pro Ala Leu Xaa Leu His Gly Thr  
 115 120 125

His Arg Leu Leu Lys Ile Ala Ser Thr Cys Ser Val Ala Ser Thr Thr  
 130 135 140

<210> 1273

<211> 252

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1273

Ala Arg Ala Pro Pro Arg Pro Arg Arg Ala Gly Arg Cys Gln Leu Pro  
 1 5 10 15

Gln Arg Pro Ala Glu Ala Arg Cys Met Leu Ser Arg Cys Arg Ser Xaa  
 20 25 30

Leu Leu His Val Leu Gly Leu Ser Phe Leu Leu Gln Thr Arg Arg Pro  
 35 40 45

Ile Leu Leu Cys Ser Pro Arg Leu Met Lys Pro Leu Val Val Phe Val  
 50 55 60

Leu Gly Gly Pro Gly Ala Gly Lys Gly Thr Gln Cys Ala Arg Ile Val  
 65 70 75 80

Glu Lys Tyr Gly Tyr Thr His Leu Ser Ala Gly Glu Leu Leu Arg Asp  
 85 90 95

Glu Arg Lys Asn Pro Asp Ser Gln Tyr Gly Glu Leu Ile Glu Lys Tyr  
 100 105 110

Ile Lys Glu Gly Lys Ile Val Pro Val Glu Ile Thr Ile Ser Leu Leu  
 115 120 125

Lys Arg Glu Met Asp Gln Thr Met Ala Ala Asn Ala Gln Lys Asn Lys  
 130 135 140

Phe Leu Ile Asp Gly Phe Pro Arg Asn Gln Asp Asn Leu Gln Gly Trp

1300

145		150		155		160
Asn Lys Thr Met Asp Gly Lys Ala Asp Val Ser Phe Val Leu Phe Phe						
	165		170		175	
Asp Cys Asn Asn Glu Ile Cys Ile Glu Arg Cys Leu Glu Arg Gly Lys						
	180		185		190	
Ser Ser Gly Arg Ser Asp Asp Asn Arg Glu Ser Leu Glu Lys Arg Ile						
	195		200		205	
Gln Thr Tyr Leu Gln Ser Thr Lys Pro Ile Ile Asp Leu Tyr Glu Glu						
	210		215		220	
Met Gly Lys Val Lys Lys Ile Asp Ala Ser Lys Ser Val Asp Glu Val						
	225		230		235	240
Phe Asp Glu Val Val Gln Ile Phe Asp Lys Glu Gly						
	245		250			

&lt;210&gt; 1274

&lt;211&gt; 425

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1274

Ala Ser Glu Arg Ser Glu Ala Arg Arg Lys Leu Arg Glu Cys Asp Gly							
1		5		10		15	
Leu Val Asp Ala Leu Ile Phe Ile Val Gln Ala Glu Ile Gly Gln Lys							
	20		25		30		
Asp Ser Xaa Ser Lys Leu Val Glu Asn Cys Val Cys Leu Leu Arg Asn							
	35		40		45		
Leu Ser Tyr Gln Val His Arg Glu Ile Pro Gln Ala Glu Arg Tyr Gln							
	50		55		60		
Glu Ala Ala Pro Asn Val Ala Asn Asn Thr Gly Pro His Ala Ala Ser							
	65		70		75		80
Cys Phe Gly Ala Lys Lys Gly Lys Gly Lys Lys Pro Ile Glu Asp Pro							
	85		90		95		

Ala	Asn	Asp	Thr	Val	Asp	Phe	Pro	Lys	Arg	Thr	Ser	Pro	Ala	Arg	Gly	
			100						105						110	
Tyr	Glu	Leu	Leu	Phe	Gln	Pro	Glu	Val	Val	Arg	Ile	Tyr	Ile	Ser	Leu	
			115						120						125	
Leu	Lys	Glu	Ser	Lys	Thr	Pro	Ala	Ile	Leu	Glu	Ala	Ser	Ala	Gly	Ala	
			130						135						140	
Ile	Gln	Asn	Leu	Cys	Ala	Gly	Arg	Trp	Thr	Tyr	Gly	Arg	Tyr	Ile	Arg	
145						150						155			160	
Ser	Ala	Leu	Arg	Gln	Glu	Lys	Ala	Leu	Ser	Ala	Ile	Ala	Asp	Leu	Leu	
			165						170						175	
Thr	Asn	Glu	His	Glu	Arg	Val	Val	Lys	Ala	Ala	Ser	Gly	Ala	Leu	Arg	
			180						185						190	
Asn	Leu	Ala	Val	Asp	Ala	Arg	Asn	Lys	Glu	Leu	Ile	Gly	Lys	His	Ala	
			195						200						205	
Ile	Pro	Asn	Leu	Val	Lys	Asn	Leu	Pro	Gly	Gly	Gln	Gln	Asn	Ser	Ser	
210						215						220				
Trp	Asn	Phe	Ser	Glu	Asp	Thr	Val	Ile	Ser	Ile	Leu	Asn	Thr	Ile	Asn	
225						230						235			240	
Glu	Val	Ile	Ala	Glu	Asn	Leu	Glu	Ala	Ala	Lys	Lys	Leu	Arg	Glu	Thr	
			245						250						255	
Gln	Gly	Ile	Glu	Lys	Leu	Val	Leu	Ile	Asn	Lys	Ser	Gly	Asn	Arg	Ser	
			260						265						270	
Glu	Lys	Glu	Val	Arg	Ala	Ala	Ala	Leu	Val	Leu	Gln	Thr	Ile	Trp	Gly	
			275						280						285	
Tyr	Lys	Glu	Leu	Arg	Lys	Pro	Leu	Glu	Lys	Glu	Gly	Trp	Lys	Lys	Ser	
290						295						300				
Asp	Phe	Gln	Val	Asn	Leu	Asn	Asn	Ala	Ser	Arg	Ser	Gln	Ser	Ser	His	
305						310						315			320	
Ser	Tyr	Asp	Asp	Ser	Thr	Leu	Pro	Leu	Ile	Asp	Arg	Asn	Gln	Lys	Ser	
			325						330						335	
Asp	Lys	Lys	Pro	Asp	Arg	Glu	Glu	Ile	Gln	Met	Ser	Asn	Met	Gly	Ser	
			340						345						350	
Asn	Thr	Lys	Ser	Leu	Asp	Asn	Asn	Tyr	Ser	Thr	Pro	Asn	Glu	Arg	Gly	
355						360						365				

1302

Asp His Asn Arg Thr Leu Asp Arg Ser Gly Asp Leu Gly Asp Met Glu  
 370 375 380

Pro Leu Lys Gly Thr Thr Pro Leu Met Gln Asp Glu Gly Gln Glu Ser  
 385 390 395 400

Leu Glu Glu Glu Leu Asp Val Leu Val Leu Asp Asp Glu Gly Gly Gln  
 405 410 415

Val Ser Tyr Pro Ser Met Gln Lys Ile  
 420 425

&lt;210&gt; 1275

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1275

Phe Phe Phe Ser Ser Leu Phe Ser Leu Xaa Phe Leu Lys Lys Gly Lys  
 1 5 10 15

Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu  
 20 25 30

Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val  
 35 40 45

Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro  
 50 55 60

Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met  
 65 70 75 80

Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp  
 85 90 95

Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala  
 100 105 110

&lt;210&gt; 1276

&lt;211&gt; 766

&lt;212&gt; PRT

1303

&lt;213&gt; Homo sapiens

&lt;400&gt; 1276

Gly Asp Phe Ile Met Leu Arg Ala Gly Arg Arg Ala Pro Leu Pro Ser  
 1 5 10 15  
 Pro Pro Ser Leu Asp Ser Pro Gly Pro Gln Leu Met Pro Ser Pro Arg  
 20 25 30  
 Pro Val Leu Leu Arg Gly Ala Arg Ala Ala Leu Leu Leu Leu Leu Pro  
 35 40 45  
 Pro Arg Leu Leu Ala Arg Pro Ser Leu Leu Leu Arg Arg Ser Leu Ser  
 50 55 60  
 Ala Ala Ser Cys Ala Pro Ile Ser Leu Pro Ala Ala Ala Ser Arg Ser  
 65 70 75 80  
 Ser Met Asp Gly Ala Gly Ala Glu Glu Val Leu Ala Pro Leu Arg Leu  
 85 90 95  
 Ala Val Arg Gln Gln Gly Asp Leu Val Arg Lys Leu Lys Glu Asp Lys  
 100 105 110  
 Ala Pro Gln Val Asp Val Asp Lys Ala Val Ala Glu Leu Lys Ala Arg  
 115 120 125  
 Lys Arg Val Leu Glu Ala Lys Glu Leu Ala Leu Gln Pro Lys Asp Asp  
 130 135 140  
 Ile Val Asp Arg Ala Lys Met Glu Asp Thr Leu Lys Arg Arg Phe Phe  
 145 150 155 160  
 Tyr Asp Gln Ala Phe Ala Ile Tyr Gly Gly Val Ser Gly Leu Tyr Asp  
 165 170 175  
 Phe Gly Pro Val Gly Cys Ala Leu Lys Asn Asn Ile Ile Gln Thr Trp  
 180 185 190  
 Arg Gln His Phe Ile Gln Glu Glu Gln Ile Leu Glu Ile Asp Cys Thr  
 195 200 205  
 Met Leu Thr Pro Glu Pro Val Leu Lys Thr Ser Gly His Val Asp Lys  
 210 215 220  
 Phe Ala Asp Phe Met Val Lys Asp Val Lys Asn Gly Glu Cys Phe Arg  
 225 230 235 240  
 Ala Asp His Leu Leu Lys Ala His Leu Gln Lys Leu Met Ser Asp Lys  
 245 250 255

1304

Lys Cys Ser Val Glu Lys Lys Ser Glu Met Glu Ser Val Leu Ala Gln  
 260 265 270  
 Leu Asp Asn Tyr Gly Gln Gln Glu Leu Ala Asp Leu Phe Val Asn Tyr  
 275 280 285  
 Asn Val Lys Ser Pro Ile Thr Gly Asn Asp Leu Ser Pro Pro Val Ser  
 290 295 300  
 Phe Asn Leu Met Phe Lys Thr Phe Ile Gly Pro Gly Gly Asn Met Pro  
 305 310 315 320  
 Gly Tyr Leu Arg Pro Glu Thr Ala Gln Gly Ile Phe Leu Asn Phe Lys  
 325 330 335  
 Arg Leu Leu Glu Phe Asn Gln Gly Lys Leu Pro Phe Ala Ala Ala Gln  
 340 345 350  
 Ile Gly Asn Ser Phe Arg Asn Glu Ile Ser Pro Arg Ser Gly Leu Ile  
 355 360 365  
 Arg Val Arg Glu Phe Thr Met Ala Glu Ile Glu His Phe Val Asp Pro  
 370 375 380  
 Ser Glu Lys Asp His Pro Lys Phe Gln Asn Val Ala Asp Leu His Leu  
 385 390 395 400  
 Tyr Leu Tyr Ser Ala Lys Ala Gln Val Ser Gly Gln Ser Ala Arg Lys  
 405 410 415  
 Met Arg Leu Gly Asp Ala Val Glu Gln Gly Val Ile Asn Asn Thr Val  
 420 425 430  
 Leu Gly Tyr Phe Ile Gly Arg Ile Tyr Leu Tyr Leu Thr Lys Val Gly  
 435 440 445  
 Ile Ser Pro Asp Lys Leu Arg Phe Arg Gln His Met Glu Asn Glu Met  
 450 455 460  
 Ala His Tyr Ala Cys Asp Cys Trp Asp Ala Glu Ser Lys Thr Ser Tyr  
 465 470 475 480  
 Gly Trp Ile Glu Ile Val Gly Cys Ala Asp Arg Ser Cys Tyr Asp Leu  
 485 490 495  
 Ser Cys His Ala Arg Ala Thr Lys Val Pro Leu Val Ala Glu Lys Pro  
 500 505 510  
 Leu Lys Glu Pro Lys Thr Val Asn Val Val Gln Phe Glu Pro Ser Lys  
 515 520 525



1305

Gly Ala Ile Gly Lys Ala Tyr Lys Lys Asp Ala Lys Leu Val Met Glu  
 530 535 540

Tyr Leu Ala Ile Cys Asp Glu Cys Tyr Ile Thr Glu Met Glu Met Leu  
 545 550 555 560

Leu Asn Glu Lys Gly Glu Phe Thr Ile Glu Thr Glu Gly Lys Thr Phe  
 565 570 575

Gln Leu Thr Lys Asp Met Ile Asn Val Lys Arg Phe Gln Lys Thr Leu  
 580 585 590

Tyr Val Glu Glu Val Val Pro Asn Val Ile Glu Pro Ser Phe Gly Leu  
 595 600 605

Gly Arg Ile Met Tyr Thr Val Phe Glu His Thr Phe His Val Arg Glu  
 610 615 620

Gly Asp Glu Gln Arg Thr Phe Phe Ser Phe Pro Ala Val Val Ala Pro  
 625 630 635 640

Phe Lys Cys Ser Val Leu Pro Leu Ser Gln Asn Gln Glu Phe Met Pro  
 645 650 655

Phe Val Lys Glu Leu Ser Glu Ala Leu Thr Arg His Gly Val Ser His  
 660 665 670

Lys Val Asp Asp Ser Ser Gly Ser Ile Gly Arg Arg Tyr Ala Arg Thr  
 675 680 685

Asp Glu Ile Gly Val Ala Phe Gly Val Thr Ile Asp Phe Asp Thr Val  
 690 695 700

Asn Lys Thr Pro His Thr Ala Thr Leu Arg Asp Arg Asp Ser Met Arg  
 705 710 715 720

Gln Ile Arg Ala Glu Ile Ser Glu Leu Pro Ser Ile Val Gln Asp Leu  
 725 730 735

Ala Asn Gly Asn Ile Thr Trp Ala Asp Val Glu Ala Arg Tyr Pro Leu  
 740 745 750

Phe Glu Gly Gln Glu Thr Gly Lys Lys Glu Thr Ile Glu Glu  
 755 760 765

&lt;210&gt; 1277

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1306

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1277

Leu Gly Ser Arg Gln Ala Ala Gly Thr Met Arg Gly Gln Arg Ser Leu  
 1 5 10 15

Leu Leu Gly Pro Ala Arg Leu Cys Leu Arg Leu Leu Leu Leu Gly  
 20 25 30

Tyr Arg Arg Arg Cys Pro Pro Leu Leu Arg Gly Leu Val Gln Arg Trp  
 35 40 45

Arg Tyr Gly Lys Val Cys Leu Arg Ser Leu Leu Tyr Asn Ser Phe Gly  
 50 55 60

Gly Ser Asp Thr Ala Val Asp Ala Ala Phe Xaa Pro Val Tyr Trp Leu  
 65 70 75 80

Val Asp Asn Val Ile Arg Trp Phe Gly Val Val Phe Val Val Leu Val  
 85 90 95

Ile Val Leu Thr Gly Ser Ile Val Ala Ile Ala Tyr Leu Cys Val Leu  
 100 105 110

Pro Leu Ile Leu Arg Thr Tyr Ser Val Pro Arg Leu Cys Trp His Phe  
 115 120 125

Phe Tyr Ser His Trp Asn Leu Ile Leu Ile Val Phe His Tyr Tyr Gln  
 130 135 140

Ala Ile Thr Thr Pro Pro Gly Tyr Pro Pro Gln Gly Arg Asn Asp Ile  
 145 150 155 160

Ala Thr Val Ser Ile Cys Lys Lys Cys Ile Tyr Pro Lys Pro Ala Arg  
 165 170 175

Thr His His Cys Ser Ile Cys Asn Arg Cys Val Leu Lys Met Asp His  
 180 185 190

His Cys Pro Trp Leu Asn Asn Cys Val Gly His Tyr Asn His Arg Tyr  
 195 200 205

Phe Phe Ser Phe Cys Phe Phe Met Thr Leu Gly Cys Val Tyr Cys Ser  
 210 215 220

Tyr Gly Ser Trp Asp Leu Phe Arg Glu Ala Tyr Ala Ala Ile Glu Lys  
 225 230 235 240

[illegible]

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<400> 1278
Val Lys Ala Ser Ala Glu Thr Pro Arg Pro Gln Pro Val Asp Lys Leu
  1                      5                      10                      15
Glu Lys Ile Leu Glu Lys Leu Leu Thr Arg Phe Pro Gln Cys Asn Lys
      20                      25                      30
Ala Gln Met Thr Asn Ile Leu Gln Gln Ile Lys Thr Ala Arg Thr Thr
      35                      40                      45
Met Ala Gly Leu Thr Met Glu Glu Leu Ile Gln Leu Val Ala Ala Arg
      50                      55                      60

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1308

Leu Ala Glu His Glu Arg Val Ala Ala Ser Thr Gln Pro Leu Gly Arg  
 65 70 75 80  
 Ile Arg Ala Leu Phe Pro Ala Pro Leu Ala Gln Ile Ser Thr Pro Met  
 85 90 95  
 Phe Leu Pro Ser Ala Gln Val Ser Tyr Pro Gly Arg Ser Ser His Ala  
 100 105 110  
 Pro Ala Thr Cys Lys Leu Cys Leu Met Cys Gln Lys Leu Val Gln Pro  
 115 120 125  
 Ser Glu Leu His Pro Met Ala Cys Thr His Val Leu His Lys Glu Cys  
 130 135 140  
 Ile Lys Phe Trp Ala Gln Thr Asn Thr Asn Asp Thr Cys Pro Phe Cys  
 145 150 155 160  
 Pro Thr Leu Lys

&lt;210&gt; 1279

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1279

Pro Val Ala Val Gly Arg Val Arg Val Thr Ala Glu Gly Arg Xaa Met  
 1 5 10 15

Val Leu Gln Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala  
 20 25 30

His Leu Leu Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly  
 35 40 45

Leu Cys Gly Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro  
 50 55 60

1309

Asn	Gly	Ser	Ala	Ala	Ser	Ser	Val	Glu	Thr	Phe	Gly	Ala	Ala	Trp	Arg	65	70	75	80
Xaa	Pro	Gly	Ser	Ser	Lys	Gly	Cys	Gly	Glu	Gly	Cys	Gly	Pro	Gln	Gly	85	90	95	
Cys	Pro	Val	Cys	Leu	Ala	Glu	Glu	Thr	Ala	Pro	Tyr	Glu	Ser	Asn	Glu	100	105	110	
Ala	Cys	Gly	Gln	Leu	Arg	Asn	Pro	Gln	Gly	Pro	Phe	Ala	Thr	Cys	Gln	115	120	125	
Ala	Val	Leu	Ser	Pro	Ser	Glu	Tyr	Phe	Arg	Gln	Cys	Val	Tyr	Asp	Leu	130	135	140	
Cys	Ala	Gln	Lys	Gly	Asp	Lys	Ala	Phe	Leu	Cys	Arg	Ser	Leu	Ala	Ala	145	150	155	160
Tyr	Thr	Ala	Ala	Cys	Gln	Ala	Ala	Gly	Val	Ala	Val	Lys	Pro	Trp	Arg	165	170	175	
Thr	Asp	Ser	Phe	Cys	Pro	Leu	His	Cys	Pro	Ala	His	Ser	His	Tyr	Ser	180	185	190	
Ile	Cys	Thr	Arg	Thr	Cys	Gln	Gly	Ser	Cys	Ala	Ala	Leu	Ser	Gly	Leu	195	200	205	
Thr	Gly	Cys	Thr	Thr	Arg	Cys	Phe	Glu	Gly	Cys	Glu	Cys	Asp	Asp	Arg	210	215	220	
Phe	Leu	Leu	Ser	Gln	Gly	Val	Cys	Ile	Pro	Val	Gln	Asp	Cys	Gly	Cys	225	230	235	240
Thr	His	Asn	Gly	Arg	Tyr	Leu	Pro	Val	Asn	Ser	Ser	Leu	Leu	Thr	Ser	245	250	255	
Asp	Cys	Ser	Glu	Arg	Cys	Ser	Cys	Ser	Ser	Ser	Ser	Gly	Leu	Thr	Cys	260	265	270	
Gln	Ala	Ala	Gly	Cys	Pro	Pro	Gly	Arg	Val	Cys	Glu	Val	Lys	Ala	Glu	275	280	285	
Ala	Arg	Asn	Cys	Trp	Ala	Thr	Arg	Gly	Leu	Cys	Val	Leu	Ser	Val	Gly	290	295	300	
Ala	Asn	Leu	Thr	Thr	Phe	Asp	Gly	Ala	Arg	Gly	Ala	Thr	Thr	Ser	Pro	305	310	315	320
Gly	Val	Tyr	Glu	Leu	Ser	Ser	Arg	Cys	Pro	Gly	Leu	Gln	Asn	Thr	Ile	325	330	335	

1310

Pro Trp Tyr Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr  
 340 345 350

Glu Ala Val Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr  
 355 360 365

Leu Thr Pro Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu  
 370 375 380

Pro Ala Glu Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly  
 385 390 395 400

Ser Leu Leu Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala  
 405 410 415

Asn Gly Lys Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu  
 420 425 430

Cys Gly Ala Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His  
 435 440 445

Asp Ser Gln Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe  
 450 455 460

Ser Pro Cys Tyr Gly  
 465

<210> 1280

<211> 223

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1280

Gly Pro Arg Ala Leu Trp Pro Pro Pro Glu Val Gly Trp Gly Cys Ser  
 1 5 10 15

Pro Asn Pro Thr Leu Leu Pro Pro Leu Ser His Phe Pro Leu Leu Arg  
 20 25 30

Trp	Gly	Thr	Asn	Asn	Lys	Glu	Leu	Thr	Leu	Pro	Ala	Pro	Asn	Pro	Pro	
		35					40						45			
Pro	Ala	Pro	Pro	Cys	Pro	Pro	Arg	Phe	Trp	Phe	His	Phe	Ser	Ser	Val	
	50					55					60					
His	Lys	Leu	Pro	Leu	Asp	Ser	Cys	Val	Val	Phe	Cys	Ser	Met	Phe	His	
65					70					75					80	
Ser	Ser	Thr	Ser	Val	Ile	Ala	Ala	Ala	Thr	Ser	Ala	Lys	Cys	Ser	Ser	
				85					90						95	
Ser	Leu	Pro	Pro	Val	Leu	Pro	Thr	Ile	Pro	Ser	Pro	Lys	Ile	Leu	Phe	
			100					105					110			
Val	Gly	Lys	Arg	Gly	Trp	Gly	Met	Ala	Gly	Trp	Val	Thr	Asp	Tyr	Pro	
	115						120					125				
Ser	Pro	Arg	Glu	Gly	Gly	Ala	Leu	Pro	Leu	Gly	Cys	Cys	Ser	Arg	Val	
	130					135					140					
Ser	Lys	Gly	Ala	Arg	Ile	Asp	His	Lys	Gly	Cys	Arg	Gly	His	Leu	Leu	
145					150					155					160	
Pro	Leu	Phe	Cys	Trp	Gly	Gly	Val	Ala	Met	Ile	Cys	Pro	Ser	Leu	Gly	
			165						170					175		
Leu	Pro	Leu	Trp	Phe	Pro	Ile	Cys	Ser	Tyr	Leu	Asn	Lys	Lys	Asn	Ile	
			180					185					190			
Leu	Phe	Trp	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	
	195						200					205				
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Xaa	Xaa	Gly	Gly	Ala	Pro	Pro	Pro		
210						215					220					

Thr Gln Ser Lys Trp Arg Leu Glu Val Gln Cys Gly Lys Glu Lys Gln  
1 5 10 15

1312

Val Phe Ile Glu Ser Thr Asn Ser Thr Pro Phe Lys Asn Phe Xaa Gly  
                   20                                  25                                  30

Thr Gln Pro Lys Gly  
                   35

&lt;210&gt; 1282

&lt;211&gt; 458

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (249)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1282

Gly Pro Gln Arg Leu Ser Pro Gly Ala Met Leu Pro Ala Ala Thr Ala  
   1                                  5                                  10                                  15

Ser Leu Leu Gly Pro Leu Leu Thr Ala Cys Ala Leu Leu Pro Phe Ala  
                   20                                  25                                  30

Gln Gly Gln Thr Pro Asn Tyr Thr Arg Pro Val Phe Leu Cys Gly Gly  
                   35                                  40                                  45

Asp Val Lys Gly Glu Ser Gly Tyr Val Ala Ser Glu Gly Phe Pro Asn  
   50                                  55                                  60

Leu Tyr Pro Pro Asn Lys Glu Cys Ile Trp Thr Ile Thr Val Pro Glu  
   65                                  70                                  75                                  80

Gly Gln Thr Val Ser Leu Ser Phe Arg Val Phe Asp Leu Glu Leu His  
                                   85                                  90                                  95

Pro Ala Cys Arg Tyr Asp Ala Leu Glu Val Phe Ala Gly Ser Gly Thr  
                   100                                  105                                  110

Ser Gly Gln Arg Leu Gly Arg Phe Cys Gly Thr Phe Arg Pro Ala Pro  
                   115                                  120                                  125

Leu Val Ala Pro Gly Asn Gln Val Thr Leu Arg Met Thr Thr Asp Glu  
   130                                  135                                  140

Gly Thr Gly Gly Arg Gly Phe Leu Leu Trp Tyr Ser Gly Arg Ala Thr  
   145                                  150                                  155                                  160

Ser Gly Thr Glu His Gln Phe Cys Gly Gly Arg Leu Glu Lys Ala Gln





1314

435

440

445

Gln Pro Val Arg Ala Ala Ala Ser Gln Asp  
450 455

&lt;210&gt; 1283

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (154)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1283

Cys Arg Ala Pro Leu Gly Ala Gly Leu Ser Pro Ala Val Arg Arg Gln  
1 5 10 15

Glu Pro Pro Phe Pro Leu Gly Val Thr Arg Gly Trp Gly Arg Trp Pro  
20 25 30

Ile Gln Lys Arg Arg Glu Gly Ala Arg Pro Val Pro Xaa Ser Glu Arg  
35 40 45

Ser Gln Glu Asp Gly Arg Gly Pro Ala Ala Arg Ser Ser Gly Thr Leu  
50 55 60

Trp Arg Ile Arg Thr Arg Leu Ser Leu Cys Arg Asp Pro Glu Pro Pro  
65 70 75 80

Pro Pro Leu Cys Leu Leu Arg Val Ser Leu Leu Cys Ala Leu Arg Ala  
85 90 95

Gly Gly Arg Gly Ser Arg Trp Gly Glu Asp Gly Ala Arg Leu Leu Leu  
100 105 110

Leu Pro Pro Ala Arg Ala Ala Gly Asn Gly Glu Ala Glu Pro Ser Gly  
115 120 125

1315

Gly Pro Ser Tyr Ala Gly Arg Met Leu Glu Ser Ser Gly Cys Lys Ala  
 130 135 140  
 Leu Lys Glu Gly Val Leu Glu Lys Arg Xaa Xaa Gly Cys Cys Ser Ser  
 145 150 155 160  
 Gly Arg Lys Ser Val Ala Ser Ser Pro Arg Lys Gly Cys Cys Leu Ser  
 165 170 175  
 Arg Pro Ser Ser Cys Asn Thr Ser Ser Ser Ser Asn Ser Ser Ser Ser  
 180 185 190  
 Ser Ser Asn Asn Ser Pro Gly Arg Gly Arg Pro Ser Arg Pro Asn Pro  
 195 200 205  
 Val Ala Pro Leu Ser Pro Ala Ser Ser Arg Arg Ser Ser Ser Arg Asn  
 210 215 220  
 Cys Thr Ser Pro Thr  
 225

&lt;210&gt; 1284

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1284

Thr Ser Val Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu  
 1 5 10 15  
 Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser  
 20 25 30  
 Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe  
 35 40 45  
 Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu  
 50 55 60  
 Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu  
 65 70 75 80  
 Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile

1316

85										90					95				
Glu	Cys	Leu	His	Ser	Phe	Cys	Lys	Thr	Cys	Ile	Val	Arg	Tyr	Leu	Glu				
			100					105					110						
Thr	Ser	Lys	Tyr	Cys	Pro	Ile	Cys	Asp	Val	Gln	Val	His	Lys	Thr	Arg				
		115					120					125							
Pro	Leu	Leu	Asn	Ile	Arg	Ser	Asp	Lys	Thr	Leu	Gln	Asp	Ile	Val	Tyr				
	130					135					140								
Lys	Leu	Val	Pro	Gly	Leu	Phe	Lys	Asn	Glu	Met	Lys	Arg	Arg	Arg	Asp				
145					150				155						160				
Phe	Tyr	Ala	Ala	His	Pro	Ser	Ala	Asp	Ala	Ala	Asn	Gly	Ser	Asn	Glu				
				165				170						175					
Asp	Arg	Gly	Glu	Val	Ala	Asp	Glu	Asp	Lys	Arg	Ile	Ile	Thr	Asp	Asp				
		180						185					190						
Glu	Ile	Ile	Ser	Leu	Ser	Ile	Glu	Phe	Phe	Asp	Gln	Asn	Arg	Leu	Asp				
	195						200					205							
Arg	Lys	Val	Asn	Lys	Asp	Lys	Glu	Lys	Ser	Lys	Glu	Glu	Val	Asn	Asp				
	210					215					220								
Lys	Arg	Tyr	Leu	Arg	Cys	Pro	Ala	Ala	Met	Thr	Val	Met	His	Leu	Arg				
225					230				235						240				
Lys	Phe	Leu	Arg	Ser	Lys	Met	Asp	Ile	Pro	Asn	Thr	Phe	Gln	Ile	Asp				
				245					250					255					
Val	Met	Tyr	Glu	Glu	Glu	Pro	Leu	Lys	Asp	Tyr	Tyr	Thr	Leu	Met	Asp				
			260					265					270						
Ile	Ala	Tyr	Ile	Tyr	Thr	Trp	Arg	Arg	Asn	Gly	Pro	Leu	Pro	Leu	Lys				
	275						280					285							
Tyr	Arg	Val	Arg	Pro	Thr	Cys	Lys	Arg	Met	Lys	Ile	Ser	His	Gln	Arg				
	290					295					300								
Asp	Gly	Leu	Thr	Asn	Ala	Gly	Glu	Leu	Glu	Ser	Asp	Ser	Gly	Ser	Asp				
305					310					315					320				
Lys	Ala	Asn	Ser	Pro	Ala	Gly	Gly	Ile	Pro	Ser	Thr	Ser	Ser	Cys	Leu				
				325					330					335					
Pro	Ser	Pro	Ser	Thr	Pro	Val	Gln	Ser	Pro	His	Pro	Gln	Phe	Pro	His				
			340					345					350						
Ile	Ser	Ser	Thr	Met	Asn	Gly	Thr	Ser	Asn	Ser	Pro	Ser	Gly	Asn	His				

1317

355 360 365  
Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser  
370 375 380  
Ser Ala Thr Ser Ser Gly  
385 390

<210> 1285  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 1285  
His Ala Ser Ala Gly Ser Gln Leu Phe Glu Met His Glu Lys Leu Ser  
1 5 10 15

Cys Met Ala Asn Ser Val Ile Lys Asn Leu Gln Ser Arg Trp Arg Ser  
20 25 30

Pro Ser His Glu Asn Ser Ile  
35

<210> 1286  
<211> 453  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (101)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (110)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (286)  
<223> Xaa equals any of the naturally occurring L-amino acids

1318

&lt;400&gt; 1286

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Arg Arg Ser Val Ile Cys Asp Ser Asn Ala Thr Ala Leu Glu Leu Pro
 1           5           10           15

Gly Leu Pro Leu Ser Leu Pro Gln Pro Ser Ile Pro Ala Ala Val Pro
      20           25           30

Gln Ser Ala Pro Pro Xaa Pro His Arg Glu Glu Thr Val Thr Ala Thr
      35           40           45

Ala Thr Ser Gln Val Ala Gln Gln Pro Pro Ala Ala Ala Pro Gly
      50           55           60

Glu Gln Ala Val Ala Gly Pro Ala Pro Arg Leu Ser Pro Ala Val Pro
      65           70           75           80

Ala Lys Thr Ala Gln Cys Pro Ser Leu Ala Leu Trp Gly Ala Lys Arg
      85           90           95

Ser Arg Arg Arg Xaa Lys Val Ala Ala Ala Ala Gln Ala Xaa Lys Glu
      100           105           110

Pro Gln Glu Glu Arg Ser Gln Gln Gln Asp Asp Ile Glu Glu Leu Glu
      115           120           125

Thr Lys Ala Val Gly Met Ser Asn Asp Gly Arg Phe Leu Lys Phe Asp
      130           135           140

Ile Glu Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Lys Gly Leu Asp
      145           150           155           160

Thr Glu Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Asp Arg Lys
      165           170           175

Leu Thr Lys Ser Glu Arg Gln Arg Phe Lys Glu Glu Ala Glu Met Leu
      180           185           190

Lys Gly Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Glu
      195           200           205

Ser Thr Val Lys Gly Lys Lys Cys Ile Val Leu Val Thr Glu Leu Met
      210           215           220

Thr Ser Gly Thr Leu Lys Thr Tyr Leu Lys Arg Phe Lys Val Met Lys
      225           230           235           240

Ile Lys Val Leu Arg Ser Trp Cys Arg Gln Ile Leu Lys Gly Leu Gln
      245           250           255

Phe Leu His Thr Arg Thr Pro Pro Ile Ile His Arg Asp Leu Lys Cys

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1319

260	265	270
Asp Asn Ile Phe Ile Thr Gly	Pro Thr Gly Ser Val Lys Xaa Gly Asp	
275	280	285
Leu Gly Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile		
290	295	300
Gly Thr Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp		
305	310	315 320
Glu Ser Val Asp Val Tyr Ala Phe Gly Met Cys Met Leu Glu Met Ala		
325	330	335
Thr Ser Glu Tyr Pro Tyr Ser Glu Cys Gln Asn Ala Ala Gln Ile Tyr		
340	345	350
Arg Arg Val Thr Ser Gly Val Lys Pro Ala Ser Phe Asp Lys Val Ala		
355	360	365
Ile Pro Glu Val Lys Glu Ile Ile Glu Gly Cys Ile Arg Gln Asn Lys		
370	375	380
Asp Glu Arg Tyr Ser Ile Lys Asp Leu Leu Asn His Ala Phe Phe Gln		
385	390	395 400
Glu Glu Thr Gly Val Arg Val Glu Leu Ala Glu Glu Asp Asp Gly Glu		
405	410	415
Lys Ile Ala Ile Lys Leu Trp Leu Arg Ile Glu Asp Ile Lys Lys Leu		
420	425	430
Lys Gly Lys Tyr Lys Asp Lys Lys Lys Lys Lys Lys Lys Lys Lys		
435	440	445
Asn Thr His Arg Ala		
450		

&lt;210&gt; 1287

&lt;211&gt; 450

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1320

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (193)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (314)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (326)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (344)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1287

Ala Ala Glu Val Leu Cys Pro Ser Cys Phe Pro Ile Ser Pro Ala Pro

1

5

10

15

Trp Met Thr Val Gly Pro Ala Ser Ala Leu Phe Pro Cys Gln Thr Pro

20

25

30

Xaa Phe Pro Trp Thr Glu Trp Asn Xaa Trp Xaa Phe Thr Ala His Val

35

40

45

Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val Arg Glu Tyr Val

50

55

60

Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu Asn Leu Thr Val Arg

65

70

75

80

Ile Asp Ile Met Glu Lys Asp Thr Ile Ser Tyr Thr Glu Leu Asp Phe



85																90																95															
Glu	Leu	Ile	Lys	Val	Glu	Val	Lys	Glu	Met	Glu	Lys	Leu	Val	Ile	Gln																																
100								105								110																															
Leu	Lys	Glu	Xaa	Phe	Gly	Gly	Ser	Ser	Glu	Ile	Val	Asp	Gln	Leu	Glu																																
115								120								125																															
Val	Glu	Ile	Arg	Asn	Met	Thr	Leu	Leu	Val	Glu	Lys	Leu	Glu	Thr	Leu																																
130								135								140																															
Asp	Lys	Asn	Asn	Val	Leu	Ala	Ile	Arg	Arg	Glu	Ile	Val	Ala	Leu	Lys																																
145								150								155								160																							
Thr	Lys	Leu	Lys	Glu	Cys	Glu	Ala	Ser	Lys	Asp	Gln	Asn	Thr	Pro	Val																																
165								170								175																															
Val	His	Pro	Pro	Pro	Thr	Pro	Gly	Ser	Cys	Gly	His	Gly	Gly	Val	Val																																
180								185								190																															
Xaa	Ile	Ser	Lys	Pro	Ser	Val	Val	Gln	Leu	Asn	Trp	Arg	Gly	Phe	Ser																																
195								200								205																															
Tyr	Leu	Tyr	Gly	Ala	Trp	Gly	Arg	Asp	Tyr	Ser	Pro	Gln	His	Pro	Asn																																
210								215								220																															
Lys	Gly	Leu	Tyr	Trp	Val	Ala	Pro	Leu	Asn	Thr	Asp	Gly	Arg	Leu	Leu																																
225								230								235								240																							
Glu	Tyr	Tyr	Arg	Leu	Tyr	Asn	Thr	Leu	Asp	Asp	Leu	Leu	Leu	Tyr	Ile																																
245								250								255																															
Asn	Ala	Arg	Glu	Leu	Arg	Ile	Thr	Tyr	Gly	Gln	Gly	Ser	Gly	Thr	Ala																																
260								265								270																															
Val	Tyr	Asn	Asn	Asn	Met	Tyr	Val	Asn	Met	Tyr	Asn	Thr	Gly	Asn	Ile																																
275								280								285																															
Ala	Arg	Val	Asn	Leu	Thr	Thr	Asn	Thr	Ile	Ala	Val	Thr	Gln	Thr	Leu																																
290								295								300																															
Pro	Asn	Ala	Ala	Tyr	Asn	Asn	Arg	Phe	Xaa	Tyr	Ala	Asn	Val	Ala	Trp																																
305								310								315								320																							
Gln	Asp	Ile	Asp	Phe	Xaa	Val	Asp	Glu	Asn	Gly	Leu	Trp	Val	Ile	Tyr																																
325								330								335																															
Ser	Thr	Glu	Ala	Ser	Thr	Gly	Xaa	Met	Val	Ile	Ser	Lys	Leu	Asn	Asp																																
340								345								350																															
Thr	Thr	Leu	Gln	Val	Leu	Asn	Thr	Trp	Tyr	Thr	Lys	Gln	Tyr	Lys	Pro																																

1322

355                      360                      365  
 Ser Ala Ser Asn Ala Phe Met Val Cys Gly Val Leu Tyr Ala Thr Arg  
 370                      375                      380  
 Thr Met Asn Thr Arg Thr Glu Glu Ile Phe Tyr Tyr Tyr Asp Thr Asn  
 385                      390                      395                      400  
 Thr Gly Lys Glu Gly Lys Leu Asp Ile Val Met His Lys Met Gln Glu  
 405                      410                      415  
 Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe Asp Gln Lys Leu Tyr Val  
 420                      425                      430  
 Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp Leu Ser Val Leu Gln Lys  
 435                      440                      445  
 Pro Gln  
 450

<210> 1288  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 1288  
 Leu Gln Gln Ala Leu Pro Asn Asn Gly Leu Leu Phe Thr Trp Thr Leu  
 1                      5                      10                      15  
 Ser Lys Glu Gly Gly Arg Glu Gly Gln Ser Gly Val Ser Phe Gln His  
 20                      25                      30  
 Ser Ser Gln Lys Gly Glu Arg Phe Ser Gly Trp Cys His Ala Ile Gly  
 35                      40                      45  
 Ile Lys Gln Glu Ala His Gly Trp Leu Leu Asn Glu Glu Gln Asn Leu  
 50                      55                      60  
 Gly Ala Leu Trp Leu Thr Thr Ala Ile Cys Gly Ala Gly Thr His Thr  
 65                      70                      75                      80  
 Ser Arg Gln Leu Gln Phe Cys Thr Phe Ser Leu Leu Asp Ser Lys Ser  
 85                      90                      95  
 Arg Cys Cys Leu Ala Ala Leu Arg Gly His Ser Leu Leu Arg Arg Ala  
 100                      105                      110  
 Leu Gln Ser Pro Ala Pro Gly Leu Gly Glu Trp Met Arg Leu Leu Pro  
 115                      120                      125

1323

Tyr Asp Thr Cys Gln Asp Ala Leu Pro Pro Pro Leu Lys Val Gly Pro  
 130 135 140

Gly Gln His Cys Ser Leu Leu Ser Ala Phe Ser Gly Leu Arg Ser Gln  
 145 150 155 160

Tyr Glu Leu Pro

<210> 1289

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1289

Trp Met Ser Glu Tyr Xaa Gln Trp Val Phe Leu Ile Ser Leu Arg Ile  
 1 5 10 15

Cys Leu Arg Val His Tyr Gln Gly Ile Ser Gly Thr Arg Xaa His Ser  
 20 25 30

Leu His Gln Phe Leu Arg Val Leu  
 35 40

<210> 1290

<211> 266

<212> PRT

<213> Homo sapiens

<400> 1290

Asp Ile Met Glu Ser Gly Phe Thr Ser Lys Asp Thr Tyr Leu Ser His  
 1 5 10 15

Phe Asn Pro Arg Asp Tyr Leu Glu Lys Tyr Tyr Lys Phe Gly Ser Arg  
 20 25 30

1324

His Ser Ala Glu Ser Gln Ile Leu Lys His Leu Leu Lys Asn Leu Phe  
           35                          40                          45

Lys Ile Phe Cys Leu Asp Gly Val Lys Gly Asp Leu Leu Ile Asp Ile  
           50                          55                          60

Gly Ser Gly Pro Thr Ile Tyr Gln Leu Leu Ser Ala Cys Glu Ser Phe  
           65                          70                          75                          80

Lys Glu Ile Val Val Thr Asp Tyr Ser Asp Gln Asn Leu Gln Glu Leu  
                           85                          90                          95

Glu Lys Trp Leu Lys Lys Glu Pro Glu Ala Phe Asp Trp Ser Pro Val  
                   100                          105                          110

Val Thr Tyr Val Cys Asp Leu Glu Gly Asn Arg Val Lys Gly Pro Glu  
           115                          120                          125

Lys Glu Glu Lys Leu Arg Gln Ala Val Lys Gln Val Leu Lys Cys Asp  
           130                          135                          140

Val Thr Gln Ser Gln Pro Leu Gly Ala Val Pro Leu Pro Pro Ala Asp  
   145                          150                          155                          160

Cys Val Leu Ser Thr Leu Cys Leu Asp Ala Ala Cys Pro Asp Leu Pro  
                           165                          170                          175

Thr Tyr Cys Arg Ala Leu Arg Asn Leu Gly Ser Leu Leu Lys Pro Gly  
                   180                          185                          190

Gly Phe Leu Val Ile Met Asp Ala Leu Lys Ser Ser Tyr Tyr Met Ile  
           195                          200                          205

Gly Glu Gln Lys Phe Ser Ser Leu Pro Leu Gly Arg Glu Ala Val Glu  
           210                          215                          220

Ala Ala Val Lys Glu Ala Gly Tyr Thr Ile Glu Trp Phe Glu Val Ile  
   225                          230                          235                          240

Ser Gln Ser Tyr Ser Ser Thr Met Ala Asn Asn Glu Gly Leu Phe Ser  
                           245                          250                          255

Leu Val Ala Arg Lys Leu Ser Arg Pro Leu  
           260                          265

&lt;210&gt; 1291

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1325

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1291

Cys Gly Ser Thr Ile Leu Gln Gly Pro Gln Lys Ala Leu Arg Arg Gly  
 1 5 10 15

Leu Gly Glu Val Gly Asp Gln Gly Lys Ser Arg Gln Arg Ala Ser Lys  
 20 25 30

Arg Leu Phe Ala Ser Lys Ala Leu Arg Gly His Leu Arg Pro Val Arg  
 35 40 45

Gly Gln Gln Pro Gly Arg Xaa Gly Ser Asp Glu Asn Glu Glu Ser Ser  
 50 55 60

Val Val Asp Tyr Val Glu Val Thr Val Gly Glu Glu Asp Ala Ile Ser  
 65 70 75 80

Asp Arg Ser Asp Ser Trp Ser Gln Ala Ala Ala Glu Gly Val Ser Glu  
 85 90 95

Leu Ala Glu Ser Asp Ser Asp Cys Val Pro Ala Glu Ala Gly Gln Ala  
 100 105 110

&lt;210&gt; 1292

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1292

Gly Ser Thr His Ala Ser Gly Thr Met Arg Ala Ala Ala Ile Ser Thr  
 1 5 10 15

Pro Lys Leu Asp Lys Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys  
 20 25 30

Glu Leu Lys Gly Thr Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys  
 35 40 45

Arg Arg Pro Lys Thr Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser  
 50 55 60

1326

Met Ile Pro His Leu Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp  
65 70 75 80

Val Leu Ser Ala Ala Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys  
85 90 95

Leu Leu Ala Asn Gln Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys  
100 105 110

Ser Glu Phe Ser Glu Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp  
115 120 125

Tyr Lys Lys Thr Glu Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile  
130 135 140

Tyr Lys Ala Phe Val His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp  
145 150 155 160

Phe Arg Thr Arg Glu Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro  
165 170 175

Thr Cys Phe Asp Glu Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys  
180 185 190

Asp Ser Tyr Pro Arg Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu  
195 200 205

Asn Asp Leu Gln Ala Asn Ser Leu Lys  
210 215

<210> 1293

<211> 235

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (229)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1293

Leu His Leu Leu Ala Val Leu Glu Lys Met Ile Ser Gln Gly Asn Asn  
1 5 10 15

Asn Lys Asn Gly Lys Asn Glu Thr Gly Asn Asn Asn Asn Lys Asp Gly  
20 25 30

Ser Asn His Lys Ala Glu Ser Gly Ala Leu Ile Glu Ala Ala Lys Ser  
35 40 45

1327

Lys Ile His Gln Tyr Lys Val Arg Ala Tyr Ile Gln Met Lys Ser Leu  
 50 55 60  
 Lys Ala Cys Lys Arg Glu Ile Lys Ser Val Met Asn Thr Ala Gly Asn  
 65 70 75 80  
 Ser Ala Pro Ser Leu Phe Leu Lys Ser Asn Phe Glu Tyr Leu Arg Gly  
 85 90 95  
 Asn Tyr Arg Lys Ala Val Lys Leu Leu Asn Ser Ser Asn Ile Ala Glu  
 100 105 110  
 His Pro Gly Phe Met Lys Thr Gly Glu Cys Leu Arg Cys Met Phe Trp  
 115 120 125  
 Asn Asn Leu Gly Cys Ile His Phe Ala Met Ser Lys His Asn Leu Gly  
 130 135 140  
 Ile Phe Tyr Phe Lys Lys Ala Leu Gln Glu Asn Asp Asn Val Cys Ala  
 145 150 155 160  
 Gln Leu Ser Ala Gly Ser Thr Asp Pro Gly Lys Lys Phe Ser Gly Arg  
 165 170 175  
 Pro Met Cys Thr Leu Leu Thr Asn Lys Arg Tyr Glu Leu Leu Tyr Asn  
 180 185 190  
 Cys Gly Ile Gln Leu Leu His Ile Gly Arg Pro Leu Ala Ala Phe Glu  
 195 200 205  
 Cys Leu Ile Glu Ala Val Gln Val Tyr His Ala Asn Pro Arg Leu Trp  
 210 215 220  
 Leu Arg Leu Ala Xaa Met Leu His Cys Cys Gln  
 225 230 235

&lt;210&gt; 1294

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1328

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1294

Ala Arg Gly Ala Arg Gly Arg Ala Leu Pro Ala Ser Gly Lys Ala Gly  
 1 5 10 15

Arg Ala Arg Gly Ser Ala Xaa Gly Ser Ala Ala Arg Gly His Trp Ser  
 20 25 30

Leu Ala Arg Phe Pro Ala Pro Arg Gly Ser His Leu Pro Ala Arg Arg  
 35 40 45

Xaa Xaa Gly Arg Val Ser Thr Pro Ile Leu Arg Pro Val Ser Ser Ile  
 50 55 60

Pro Leu Ala Leu Ser Arg Glu Ser Arg Thr Ala Glu Glu Ser Ser Leu  
 65 70 75 80

Thr Pro Gln Pro Gln Val Gly Leu Val His Ile Met Thr Ser Phe Glu  
 85 90 95

Asp Ala Asp Thr Glu Glu Thr Val Thr Cys Leu Gln Met Thr Val Tyr  
 100 105 110

His Pro Gly Gln Leu Gln Cys Gly Ile Phe Gln Ser Ile Ser Phe Asn  
 115 120 125

Arg Glu Lys Leu Pro Ser Ser Glu Val Val Lys Phe Gly Arg Asn Ser  
 130 135 140

Asn Ile Cys His Tyr Thr Phe Gln Asp Lys Gln Val Ser Arg Val Gln  
 145 150 155 160

Phe Ser Leu Gln Leu Phe Lys Lys Phe Asn Ser Ser Val Leu Ser Phe  
 165 170 175

Glu Ile Lys Asn Met Ser Lys Lys Thr Asn Leu Ile Val Asp Ser Arg  
 180 185 190

Glu Leu Gly Tyr Leu Asn Lys Met Asp Leu Pro Tyr Arg Cys Met Val  
 195 200 205

Arg Phe Gly Glu Tyr Gln Phe Leu Met Glu Lys Glu Asp Gly Glu Ser  
 210 215 220



1329

Leu Glu Phe Phe Glu Thr Gln Phe Ile Leu Ser Pro Arg Ser Leu Leu  
 225 230 235 240

Gln Glu Asn Asn Trp Pro Pro His Arg Pro Ile Pro Glu Tyr Gly Thr  
 245 250 255

Tyr Ser Leu Cys Ser Ser Gln Ser Ser Ser Pro Thr Glu Met Asp Glu  
 260 265 270

Asn Glu Ser  
 275

<210> 1295

<211> 677

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1295

Met Thr Arg Leu Pro Lys Leu Trp Ala Arg Pro Ala Gly Lys Ala Leu  
 1 5 10 15

Val Ser Pro Val Val Gln Asn Ile Thr Ser Pro Asp Glu Asp Gly Ile  
 20 25 30

Ser Pro Leu Gly Trp Leu Leu Asp Gln Tyr Leu Glu Cys Gln Glu Ala  
 35 40 45

Val Phe Asn Pro Gln Ser Arg Gly Pro Ala Phe Phe Ser Arg Val Arg  
 50 55 60

Arg Leu Thr His Leu Leu Val His Val Glu Pro Cys Glu Ala Pro Pro  
 65 70 75 80

Pro Val Val Ala Thr Pro Arg Pro Lys Gly Arg Asn Arg Ser His Asp  
 85 90 95

Trp Ser Ser Leu Ala Thr Arg Gly Leu Pro Ser Ser Ile Met Arg Asn  
 100 105 110

Leu	Thr	Arg	Cys	Trp	Arg	Ala	Val	Val	Glu	Lys	Gln	Val	Asn	Asn	Phe
		115					120					125			
Leu	Thr	Ser	Ser	Trp	Arg	Asp	Asp	Asp	Phe	Val	Pro	Arg	Tyr	Cys	Xaa
	130					135					140				
His	Phe	Asn	Ile	Leu	Gln	Asn	Ser	Ser	Ser	Glu	Leu	Phe	Gly	Pro	Arg
145					150					155					160
Xaa	Ala	Phe	Leu	Leu	Ala	Leu	Gln	Asn	Gly	Cys	Ala	Gly	Ala	Leu	Leu
				165					170					175	
Lys	Leu	Pro	Phe	Leu	Lys	Ala	Ala	His	Val	Ser	Glu	Gln	Phe	Ala	Arg
			180					185					190		
His	Ile	Asp	Gln	Gln	Ile	Gln	Gly	Ser	Arg	Ile	Gly	Gly	Ala	Gln	Glu
		195					200					205			
Met	Glu	Arg	Leu	Ala	Gln	Leu	Gln	Gln	Cys	Leu	Gln	Ala	Val	Leu	Ile
	210					215					220				
Phe	Ser	Gly	Leu	Glu	Ile	Ala	Thr	Thr	Phe	Glu	His	Tyr	Tyr	Gln	His
225					230					235					240
Tyr	Met	Ala	Asp	Arg	Leu	Leu	Gly	Val	Val	Ser	Ser	Trp	Leu	Glu	Gly
				245					250					255	
Ala	Val	Leu	Glu	Gln	Ile	Gly	Pro	Cys	Phe	Pro	Asn	Arg	Leu	Pro	Gln
			260					265					270		
Gln	Met	Leu	Gln	Ser	Leu	Ser	Thr	Ser	Lys	Glu	Leu	Gln	Arg	Gln	Phe
		275					280					285			
His	Val	Tyr	Gln	Leu	Gln	Gln	Leu	Asp	Gln	Glu	Leu	Leu	Lys	Leu	Glu
	290					295					300				
Asp	Thr	Glu	Lys	Lys	Ile	Gln	Val	Gly	Leu	Gly	Ala	Ser	Gly	Lys	Glu
305					310					315					320
His	Lys	Ser	Glu	Lys	Glu	Glu	Glu	Ala	Gly	Ala	Ala	Ala	Val	Val	Asp
				325					330					335	
Val	Ala	Glu	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Asn	Glu	Asp	Leu	Tyr	Tyr
			340					345					350		
Glu	Gly	Ala	Met	Pro	Glu	Val	Ser	Val	Leu	Val	Leu	Ser	Arg	His	Ser
		355					360					365			
Trp	Pro	Val	Ala	Ser	Ile	Cys	His	Thr	Leu	Asn	Pro	Arg	Thr	Cys	Leu
	370					375					380				

1331

Pro Ser Tyr Leu Arg Gly Thr Leu Asn Arg Tyr Ser Asn Phe Tyr Asn  
 385 390 395 400  
 Lys Ser Gln Ser His Pro Ala Leu Glu Arg Gly Ser Gln Arg Arg Leu  
 405 410 415  
 Gln Trp Thr Trp Leu Gly Trp Ala Glu Leu Gln Phe Gly Asn Gln Thr  
 420 425 430  
 Leu His Val Ser Thr Val Gln Met Trp Leu Leu Leu Tyr Leu Asn Asp  
 435 440 445  
 Leu Lys Ala Val Ser Val Glu Ser Leu Leu Ala Phe Ser Gly Leu Ser  
 450 455 460  
 Ala Asp Met Leu Asn Gln Ala Ile Gly Pro Leu Thr Ser Ser Arg Gly  
 465 470 475 480  
 Pro Leu Asp Leu His Glu Gln Lys Asp Ile Pro Gly Gly Val Leu Lys  
 485 490 495  
 Ile Arg Asp Gly Ser Lys Glu Pro Arg Ser Arg Trp Asp Ile Val Arg  
 500 505 510  
 Leu Ile Pro Pro Gln Thr Tyr Leu Gln Ala Glu Gly Glu Asp Gly Gln  
 515 520 525  
 Asn Leu Glu Lys Arg Arg Asn Leu Leu Asn Cys Leu Ile Val Arg Ile  
 530 535 540  
 Leu Lys Ala His Gly Asp Glu Gly Leu His Ile Asp Gln Leu Val Cys  
 545 550 555 560  
 Leu Val Leu Glu Ala Trp Gln Lys Gly Pro Cys Pro Pro Arg Gly Leu  
 565 570 575  
 Val Ser Ser Leu Gly Lys Gly Ser Ala Cys Ser Ser Thr Asp Val Leu  
 580 585 590  
 Ser Cys Ile Leu His Leu Leu Gly Lys Gly Thr Leu Arg Arg His Asp  
 595 600 605  
 Asp Arg Pro Gln Val Leu Ser Tyr Ala Val Pro Val Thr Val Met Glu  
 610 615 620  
 Pro His Thr Glu Ser Leu Asn Pro Gly Ser Ser Gly Pro Asn Pro Pro  
 625 630 635 640  
 Leu Thr Phe His Thr Leu Gln Ile Arg Ser Arg Gly Val Pro Tyr Ala  
 645 650 655

1332

Ser Cys Thr Ala Thr Gln Ser Phe Ser Thr Ser Gly Ser Pro Arg Leu  
 660 665 670

Gly Val Arg Gly Arg  
 675

&lt;210&gt; 1296

&lt;211&gt; 578

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1296

Gly Thr Arg Glu Gly Ala Arg Val Gly Gly Ala Arg Gly Gly Arg Asp  
 1 5 10 15

Gly Arg Lys Met Ala Thr Ala Thr Ile Ala Leu Gln Val Asn Gly Gln  
 20 25 30

Gln Gly Gly Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala  
 35 40 45

Gly Asp Lys Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu  
 50 55 60

Asn Gly Gln Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro  
 65 70 75 80

Glu Gln Gln Glu Ala Leu Gln Lys Ala Lys Lys Tyr Ala Met Glu Gln  
 85 90 95

Ser Ile Lys Ser Val Leu Val Lys Gln Thr Ile Ala His Gln Gln Gln  
 100 105 110

Gln Leu Thr Asn Leu Gln Met Ala Ala Val Thr Met Gly Phe Gly Asp  
 115 120 125

Pro Leu Ser Pro Leu Gln Ser Met Ala Ala Gln Arg Gln Arg Ala Leu  
 130 135 140

Ala Ile Met Cys Arg Val Tyr Val Gly Ser Ile Tyr Tyr Glu Leu Gly  
 145 150 155 160

Glu Asp Thr Ile Arg Gln Ala Phe Ala Pro Phe Gly Pro Ile Lys Ser  
 165 170 175

Ile Asp Met Ser Trp Asp Ser Val Thr Met Lys His Lys Gly Phe Ala  
 180 185 190

Phe Val Glu Tyr Glu Val Pro Glu Ala Ala Gln Leu Ala Leu Glu Gln

1333

195					200					205					
Met	Asn	Ser	Val	Met	Leu	Gly	Gly	Arg	Asn	Ile	Lys	Val	Gly	Arg	Pro
210					215					220					
Ser	Asn	Ile	Gly	Gln	Ala	Gln	Pro	Ile	Ile	Asp	Gln	Leu	Ala	Glu	Glu
225					230					235					240
Ala	Arg	Ala	Phe	Asn	Arg	Ile	Tyr	Val	Ala	Ser	Val	His	Gln	Asp	Leu
				245					250					255	
Ser	Asp	Asp	Asp	Ile	Lys	Ser	Val	Phe	Glu	Ala	Phe	Gly	Lys	Ile	Lys
			260					265					270		
Ser	Cys	Thr	Leu	Ala	Arg	Asp	Pro	Thr	Thr	Gly	Lys	His	Lys	Gly	Tyr
			275				280					285			
Gly	Phe	Ile	Glu	Tyr	Glu	Lys	Ala	Gln	Ser	Ser	Gln	Asp	Ala	Val	Ser
			290				295					300			
Ser	Met	Asn	Leu	Phe	Asp	Leu	Gly	Gly	Gln	Tyr	Leu	Arg	Val	Gly	Lys
305					310					315					320
Ala	Val	Thr	Pro	Pro	Met	Pro	Leu	Leu	Thr	Pro	Ala	Thr	Pro	Gly	Gly
				325					330					335	
Leu	Pro	Pro	Ala	Ala	Ala	Val	Ala	Ala	Ala	Ala	Ala	Thr	Ala	Lys	Ile
			340						345					350	
Thr	Ala	Gln	Glu	Ala	Val	Ala	Gly	Ala	Ala	Val	Leu	Gly	Thr	Leu	Gly
			355				360					365			
Thr	Pro	Gly	Leu	Val	Ser	Pro	Ala	Leu	Thr	Leu	Ala	Gln	Pro	Leu	Gly
			370				375					380			
Thr	Leu	Pro	Gln	Ala	Val	Met	Ala	Ala	Gln	Ala	Pro	Gly	Val	Ile	Thr
385					390					395					400
Gly	Val	Thr	Pro	Ala	Arg	Pro	Pro	Ile	Pro	Val	Thr	Ile	Pro	Ser	Val
				405					410					415	
Gly	Val	Val	Asn	Pro	Ile	Leu	Ala	Ser	Pro	Pro	Thr	Leu	Gly	Leu	Leu
			420					425					430		
Glu	Pro	Lys	Lys	Glu	Lys	Glu	Glu	Glu	Glu	Leu	Phe	Pro	Glu	Ser	Glu
			435				440					445			
Arg	Pro	Glu	Met	Leu	Ser	Glu	Gln	Glu	His	Met	Ser	Ile	Ser	Gly	Ser
			450				455					460			
Ser	Ala	Arg	His	Met	Val	Met	Gln	Lys	Leu	Leu	Arg	Lys	Gln	Glu	Ser

1334

465                      470                      475                      480  
 Thr Val Met Val Leu Arg Asn Met Val Asp Pro Lys Asp Ile Asp Asp  
                                  485                      490                      495  
 Asp Leu Glu Gly Glu Val Thr Glu Glu Cys Gly Lys Phe Gly Ala Val  
                                  500                      505                      510  
 Asn Arg Val Ile Ile Tyr Gln Glu Lys Gln Gly Glu Glu Glu Asp Ala  
                                  515                      520                      525  
 Glu Ile Ile Val Lys Ile Phe Val Glu Phe Ser Ile Ala Ser Glu Thr  
                                  530                      535                      540  
 His Lys Ala Ile Gln Ala Leu Asn Gly Arg Trp Phe Ala Gly Arg Lys  
 545                      550                      555                      560  
 Val Val Ala Glu Val Tyr Asp Gln Glu Arg Phe Asp Asn Ser Asp Leu  
                                  565                      570                      575  
 Ser Ala

<210> 1297  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<400> 1297  
 Pro Arg Gly Thr Ser Arg Arg Ser Ala Trp Pro Lys Met Ala Ala Ser  
   1                      5                      10                      15  
 Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser Trp Ser Arg Glu  
                                  20                      25                      30  
 Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro Val Cys Ala Lys  
                                  35                      40                      45  
 Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp Lys Pro Val Thr  
                                  50                      55                      60  
 Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His Arg Lys Gly Trp  
   65                      70                      75                      80  
 Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp His Ala Ala Glu  
                                  85                      90                      95  
 Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met Trp Gly Thr Phe  
                                  100                      105                      110

1335

Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg Arg Gly Asn Gln  
 115 120 125

Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser Pro His Lys Tyr  
 130 135 140

Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser Tyr Phe Tyr Lys  
 145 150 155 160

Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser Lys Val Val Tyr  
 165 170 175

Lys Tyr Leu

<210> 1298

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1298

Gly Leu Val Thr Ile Phe Gly Cys Pro Ser Arg Glu Lys Gly Arg Met  
 1 5 10 15

Pro Leu Glu Ser Ser Ser Ser Met Pro Leu Ser Phe Pro Ser Leu Leu  
 20 25 30

Pro Ser Val Pro His Asn Thr Asn Pro Ser Pro Pro Leu Met Ser Tyr  
 35 40 45

Ile Thr Ser Gln Glu Met Lys Cys Ile Leu His Trp Phe Ala Asn Trp  
 50 55 60

Ser Gly Pro Gln Arg Glu Arg Phe Leu Glu Asp Leu Val Ala Lys Ala  
 65 70 75 80

Val Pro Glu Lys Leu Gln Pro Leu Leu Asp Ser Leu Glu Gln Leu Ser  
 85 90 95

Val Ser Gly Ala Asp Arg Pro Pro Ser Ile Phe Glu Cys Gln Leu His  
 100 105 110

Leu Trp Asp Gln Trp Phe Arg Gly Trp Ala Glu Gln Glu Arg Asn Glu  
 115 120 125

Phe Val Arg Gln Leu Glu Phe Ser Glu Pro Asp Phe Val Ala Lys Phe  
 130 135 140

1336

Tyr Gln Ala Val Ala Ala Thr Ala Gly Lys Asp  
 145 150 155

&lt;210&gt; 1299

&lt;211&gt; 449

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1299

Ser Asn Arg Lys Phe Ile Pro His Gln Leu Leu Val Ala Ile Asp Leu  
 1 5 10 15

Leu Ala Arg Gln Ala Val Arg Tyr Ile Asn Glu Asn Leu Ile Val Asn  
 20 25 30

Thr Asp Glu Leu Gly Arg Asp Cys Leu Ile Asn Ala Ala Lys Thr Ser  
 35 40 45

Met Ser Ser Lys Ile Ile Gly Ile Asn Gly Asp Phe Phe Ala Asn Met  
 50 55 60

Val Val Asp Ala Val Leu Ala Ile Lys Tyr Thr Asp Ile Arg Gly Gln  
 65 70 75 80

Pro Arg Tyr Pro Val Asn Ser Val Asn Ile Leu Lys Ala His Gly Arg  
 85 90 95

Ser Gln Met Glu Ser Met Leu Ile Ser Gly Tyr Ala Leu Asn Cys Val  
 100 105 110

Val Gly Ser Gln Gly Met Pro Lys Arg Ile Val Asn Ala Lys Ile Ala  
 115 120 125

Cys Leu Asp Phe Ser Leu Gln Lys Thr Lys Met Lys Leu Gly Val Gln  
 130 135 140

Val Val Ile Thr Asp Pro Glu Lys Leu Asp Gln Ile Arg Gln Arg Glu  
 145 150 155 160

Ser Asp Ile Thr Lys Glu Arg Ile Gln Lys Ile Leu Ala Thr Gly Ala  
 165 170 175

Asn Val Ile Leu Thr Thr Gly Gly Ile Asp Asp Met Cys Leu Lys Tyr  
 180 185 190

Phe Val Glu Ala Gly Ala Met Ala Val Arg Arg Val Leu Lys Arg Asp  
 195 200 205

Leu Lys Arg Ile Ala Lys Ala Ser Gly Ala Thr Ile Leu Ser Thr Leu



1337

210 215 220

Ala Asn Leu Glu Gly Glu Glu Thr Phe Glu Ala Ala Met Leu Gly Gln  
225 230 235 240

Ala Glu Glu Val Val Gln Glu Arg Ile Cys Asp Asp Glu Leu Ile Leu  
245 250 255

Ile Lys Asn Thr Lys Ala Arg Thr Ser Ala Ser Ile Ile Leu Arg Gly  
260 265 270

Ala Asn Asp Phe Met Cys Asp Glu Met Glu Arg Ser Leu His Asp Ala  
275 280 285

Leu Cys Val Val Lys Arg Val Leu Glu Ser Lys Ser Val Val Pro Gly  
290 295 300

Gly Gly Ala Val Glu Ala Ala Leu Ser Ile Tyr Leu Glu Asn Tyr Ala  
305 310 315 320

Thr Ser Met Gly Ser Arg Glu Gln Leu Ala Ile Ala Glu Phe Ala Arg  
325 330 335

Ser Leu Leu Val Ile Pro Asn Thr Leu Ala Val Asn Ala Ala Gln Asp  
340 345 350

Ser Thr Asp Leu Val Ala Lys Leu Arg Ala Phe His Asn Glu Ala Gln  
355 360 365

Val Asn Pro Glu Arg Lys Asn Leu Lys Trp Ile Gly Leu Asp Leu Ser  
370 375 380

Asn Gly Lys Pro Arg Asp Asn Lys Gln Ala Gly Val Phe Glu Pro Thr  
385 390 395 400

Ile Val Lys Val Lys Ser Leu Lys Phe Ala Thr Glu Ala Ala Ile Thr  
405 410 415

Ile Leu Arg Ile Asp Asp Leu Ile Lys Leu His Pro Glu Ser Lys Asp  
420 425 430

Asp Lys His Gly Ser Tyr Glu Asp Ala Val His Ser Gly Ala Leu Asn  
435 440 445

Asp

&lt;210&gt; 1300

&lt;211&gt; 96

1338

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1300

Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe  
1 5 10 15

Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro  
20 25 30

Ser Pro Gln Ser Gln Cys Leu Cys Phe Leu Phe Tyr Phe Cys Ser Ile  
35 40 45

Arg Phe Leu Leu Leu Leu Cys Leu Lys Ser Ser Leu Gly Ser Tyr Gln  
50 55 60

Gly Phe Ser Phe Cys Val Ala Phe Ala Ala Trp Ile Lys His Trp Leu  
65 70 75 80

Thr Val Leu Met Cys Glu Glu Lys Lys Phe Ser Lys Ala Gly Glu Leu  
85 90 95

&lt;210&gt; 1301

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1301

Gly Glu Pro Lys Met Thr Gly Ser Asn Glu Phe Lys Leu Asn Gln Pro  
1 5 10 15

Pro Glu Asp Gly Ile Ser Ser Val Lys Phe Ser Pro Asn Thr Ser Gln  
20 25 30

Phe Leu Leu Val Ser Ser Trp Asp Thr Ser Val Arg Leu Tyr Asp Val  
35 40 45

Pro Ala Asn Ser Met Arg Leu Lys Tyr Gln His Thr Gly Ala Val Leu  
50 55 60

Asp Cys Ala Phe Tyr Asp Pro Thr His Ala Trp Ser Gly Gly Leu Asp  
65 70 75 80

His Gln Leu Lys Met His Asp Leu Asn Thr Asp Gln Glu Asn Leu Val  
85 90 95

1339

Gly Thr His Asp Ala Pro Ile Arg Cys Val Glu Tyr Cys Pro Glu Val  
 100 105 110  
 Asn Val Met Val Thr Gly Ser Trp Asp Gln Thr Val Lys Leu Trp Asp  
 115 120 125  
 Pro Arg Thr Pro Cys Asn Ala Gly Thr Phe Ser Gln Pro Glu Lys Val  
 130 135 140  
 Tyr Thr Leu Ser Val Ser Gly Asp Arg Leu Ile Val Gly Thr Ala Gly  
 145 150 155 160  
 Arg Arg Val Leu Val Trp Asp Leu Arg Asn Met Gly Tyr Val Gln Gln  
 165 170 175  
 Arg Arg Glu Ser Ser Leu Lys Tyr Gln Thr Arg Cys Ile Arg Ala Phe  
 180 185 190  
 Pro Asn Lys Gln Gly Tyr Val Leu Ser Ser Ile Glu Gly Arg Val Ala  
 195 200 205  
 Val Glu Tyr Leu Asp Pro Ser Pro Glu Val Gln Lys Lys Lys Tyr Ala  
 210 215 220  
 Phe Lys Cys His Arg Leu Lys Glu Asn Asn Ile Glu Gln Ile Tyr Pro  
 225 230 235 240  
 Val Asn Ala Ile Ser Phe His Asn Ile His Asn Thr Phe Ala Thr Gly  
 245 250 255  
 Gly Ser Asp Gly Phe Val Asn Ile Trp Asp Pro Phe Asn Lys Lys Arg  
 260 265 270  
 Leu Cys Gln Phe His Arg Tyr Pro Thr Ser Ile Ala Ser Leu Ala Phe  
 275 280 285  
 Ser Asn Asp Gly Thr Thr Leu Ala Ile Ala Ser Ser Tyr Met Tyr Glu  
 290 295 300  
 Met Asp Asp Thr Glu His Pro Glu Asp Gly Ile Phe Ile Arg Gln Val  
 305 310 315 320  
 Thr Asp Ala Glu Thr Lys Pro Lys Ser Pro Cys Thr  
 325 330

&lt;210&gt; 1302

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1340

&lt;400&gt; 1302

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Leu His Cys Thr Met Cys Gly Ile Trp Ala Leu Phe Gly Ser Asp Asp
 1           5           10           15

Cys Leu Ser Val Gln Cys Leu Ser Ala Met Lys Ile Ala His Arg Gly
      20           25           30

Pro Asp Ala Phe Arg Phe Glu Asn Val Asn Gly Tyr Thr Asn Cys Cys
      35           40           45

Phe Gly Phe His Arg Leu Ala Val Val Asp Pro Leu Phe Gly Met Gln
 50           55           60

Pro Ile Arg Val Lys Lys Tyr Pro Tyr Leu Trp Leu Cys Tyr Asn Gly
 65           70           75           80

Glu Ile Tyr Asn His Lys Lys Met Gln Gln His Phe Glu Phe Glu Tyr
      85           90           95

Gln Thr Lys Val Asp Gly Glu Ile Ile Leu His Leu Tyr Asp Lys Gly
      100           105           110

Gly Ile Glu Gln Thr Ile Cys Met Leu Asp Gly Val Phe Ala Phe Val
      115           120           125

Leu Leu Asp Thr Ala Asn Lys Lys Val Phe Leu Gly Arg Asp Thr Tyr
      130           135           140

Gly Val Arg Pro Leu Phe Lys Ala Met Thr Glu Asp Gly Phe Leu Ala
      145           150           155           160

Val Cys Ser Glu Ala Lys Gly Leu Val Thr Leu Lys His Ser Ala Thr
      165           170           175

Pro Phe Leu Lys Val Glu Pro Phe Leu Pro Gly His Tyr Glu Val Leu
      180           185           190

Asp Leu Lys Pro Asn Gly Lys Val Ala Ser Val Glu Met Val Lys Tyr
      195           200           205

His His Cys Arg Asp Glu Pro Leu His Ala Leu Tyr Asp Asn Val Glu
      210           215           220

Lys Leu Phe Pro Gly Phe Glu Ile Glu Thr Val Lys Asn Asn Leu Arg
      225           230           235           240

Ile Leu Phe Asn Asn Ala Val Lys Lys Arg Leu Met Thr Asp Arg Arg
      245           250           255

Ile Gly Cys Leu Leu Ser Gly Gly Leu Asp Ser Ser Leu Val Ala Ala

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1341

260	265	270
Thr Leu Leu Lys Gln Leu Lys Glu Ala Gln Val Gln Tyr Pro Leu Gln		
275	280	285
Thr Phe Ala Ile Gly Met Glu Asp Ser Pro Asp Leu Leu Ala Ala Arg		
290	295	300
Lys Val Ala Asp His Ile Gly Ser Glu His Tyr Glu Val Leu Phe Asn		
305	310	315
Ser Glu Glu Gly Ile Gln Ala Leu Asp Glu Val Ile Phe Ser Leu Glu		
325	330	335
Thr Tyr Asp Ile Thr Thr Val Arg Ala Ser Val Gly Met Tyr Leu Ile		
340	345	350
Ser Lys Tyr Ile Arg Lys Asn Thr Asp Ser Val Val Ile Phe Ser Gly		
355	360	365
Glu Gly Ser Asp Glu Leu Thr Gln Gly Tyr Ile Tyr Phe His Lys Ala		
370	375	380
Pro Ser Pro Glu Lys Ala Glu Glu Glu Ser Glu Arg Leu Leu Arg Glu		
385	390	395
Leu Tyr Leu Phe Asp Val Leu Arg Ala Asp Arg Thr Thr Ala Ala His		
405	410	415
Gly Leu Glu Leu Arg Val Pro Phe Leu Asp His Arg Phe Ser Ser Tyr		
420	425	430
Tyr Leu Ser Leu Pro Pro Glu Met Arg Ile Pro Lys Asn Gly Ile Glu		
435	440	445
Lys His Leu Leu Arg Glu Thr Phe Glu Asp Ser Asn Leu Ile Pro Lys		
450	455	460
Glu Ile Leu Trp Arg Pro Lys Glu Ala Phe Ser Asp Gly Ile Thr Ser		
465	470	475
Val Lys Asn Ser Trp Phe Lys Ile Leu Gln Glu Tyr Val Glu His Gln		
485	490	495
Val Asp Asp Ala Met Met Ala Asn Ala Ala Gln Lys Phe Pro Phe Asn		
500	505	510
Thr Pro Lys Thr Lys Glu Gly Tyr Tyr Tyr Arg Gln Val Phe Glu Arg		
515	520	525
His Tyr Pro Gly Arg Ala Asp Trp Leu Ser His Tyr Trp Met Pro Lys		

1342

530                      535                      540  
 Trp Ile Asn Ala Thr Asp Pro Ser Ala Arg Thr Leu Thr His Tyr Lys  
 545                      550                      555                      560  
 Ser Ala Val Lys Ala  
 565  
  
 <210> 1303  
 <211> 441  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 1303  
 Arg Arg Arg Arg Ala Cys Arg Ser Ala Glu Gly Thr Gly Leu Arg Ser  
 1                      5                      10                      15  
 Leu Leu Leu Pro Pro Arg Leu Gln Leu Pro Ala Gly Pro Phe Ser Arg  
 20                      25                      30  
 Cys Arg Trp Asp Pro Val Ser Ser Pro Arg Pro Ser Thr Met Pro Pro  
 35                      40                      45  
 Lys Lys Gly Gly Asp Gly Ile Lys Pro Pro Pro Ile Ile Gly Arg Phe  
 50                      55                      60  
 Gly Thr Ser Leu Lys Ile Gly Ile Val Gly Leu Pro Asn Val Gly Lys  
 65                      70                      75                      80  
 Ser Thr Phe Phe Asn Val Leu Thr Asn Ser Gln Ala Ser Ala Glu Asn  
 85                      90                      95  
 Phe Pro Phe Cys Thr Ile Asp Pro Asn Glu Ser Arg Val Pro Val Pro  
 100                      105                      110  
 Asp Glu Arg Phe Asp Phe Leu Cys Gln Tyr His Lys Pro Ala Ser Lys  
 115                      120                      125  
 Ile Pro Ala Phe Leu Asn Val Val Asp Ile Ala Gly Leu Val Lys Gly  
 130                      135                      140  
 Ala His Asn Gly Gln Gly Leu Gly Asn Ala Phe Leu Ser His Ile Ser  
 145                      150                      155                      160  
 Ala Cys Asp Gly Ile Phe His Leu Thr Arg Ala Phe Glu Asp Asp Asp  
 165                      170                      175  
 Ile Thr His Val Glu Gly Ser Val Asp Pro Ile Arg Asp Ile Glu Ile  
 180                      185                      190

1343

Ile His Glu Glu Leu Gln Leu Lys Asp Glu Glu Met Ile Gly Pro Ile  
 195 200 205

Ile Asp Lys Leu Glu Lys Val Ala Val Arg Gly Gly Asp Lys Lys Leu  
 210 215 220

Lys Pro Glu Tyr Asp Ile Met Cys Lys Val Lys Ser Trp Val Ile Asp  
 225 230 235 240

Gln Lys Lys Pro Val Arg Phe Tyr His Asp Trp Asn Asp Lys Glu Ile  
 245 250 255

Glu Val Leu Asn Lys His Leu Phe Leu Thr Ser Lys Pro Met Val Tyr  
 260 265 270

Leu Val Asn Leu Ser Glu Lys Asp Tyr Ile Arg Lys Lys Asn Lys Trp  
 275 280 285

Leu Ile Lys Ile Lys Glu Trp Val Asp Lys Tyr Asp Pro Gly Ala Leu  
 290 295 300

Val Ile Pro Phe Ser Gly Ala Leu Glu Leu Lys Leu Gln Glu Leu Ser  
 305 310 315 320

Ala Glu Glu Arg Gln Lys Tyr Leu Glu Ala Asn Met Thr Gln Ser Ala  
 325 330 335

Leu Pro Lys Ile Ile Lys Ala Gly Phe Ala Ala Leu Gln Leu Glu Tyr  
 340 345 350

Phe Phe Thr Ala Gly Pro Asp Glu Val Arg Ala Trp Thr Ile Arg Lys  
 355 360 365

Gly Thr Lys Ala Pro Gln Ala Ala Gly Lys Ile His Thr Asp Phe Glu  
 370 375 380

Lys Gly Phe Ile Met Ala Glu Val Met Lys Tyr Glu Asp Phe Lys Glu  
 385 390 395 400

Glu Gly Ser Glu Asn Ala Val Lys Ala Ala Gly Lys Tyr Arg Gln Gln  
 405 410 415

Gly Arg Asn Tyr Ile Val Glu Asp Gly Asp Ile Ile Phe Phe Lys Phe  
 420 425 430

Asn Thr Pro Gln Gln Pro Lys Lys Lys  
 435 440

1344

&lt;210&gt; 1304

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1304

Glu Lys Lys Arg Gly Arg Glu Asp Lys Pro Gly Thr Met Ala Thr Phe  
 1 5 10 15

Pro Pro Ala Thr Ser Ala Pro Gln Gln Pro Pro Gly Pro Glu Asp Glu  
 20 25 30

Asp Ser Ser Leu Asp Glu Ser Asp Leu Tyr Ser Leu Ala His Ser Tyr  
 35 40 45

Leu Gly Gly Gly Gly Arg Lys Gly Arg Thr Lys Arg Glu Ala Ala Ala  
 50 55 60

Asn Thr Asn Arg Pro Ser Pro Gly Gly His Glu Arg Lys Leu Val Thr  
 65 70 75 80

Lys Leu Gln Asn Ser Glu Arg Lys Lys Arg Gly Ala Arg Arg  
 85 90

&lt;210&gt; 1305

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1305

Val Ile Leu Glu Met Val Ile Val Phe Cys Leu Val Thr Phe Ala Thr  
 1 5 10 15

Val Pro Phe Lys Thr Met Trp Lys Pro Gln Val Cys Gly Gln His Arg  
 20 25 30

Trp Asn Asp Ile Leu Cys Phe Leu Arg Leu Pro Ser Thr Arg His Ile  
 35 40 45

Ser Leu Val Leu Gln Met Ser Ala Gln Val Leu Val Thr Ser Phe Ser  
 50 55 60

Cys Cys Pro Gly Lys Ser Val Cys Ala Gly Ala Gly Ala Leu Ala Leu  
 65 70 75 80

Phe Arg



1345

&lt;210&gt; 1306

&lt;211&gt; 231

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1306

Ala Arg Glu Met Ala Ala Gln Gln Arg Asp Cys Gly Gly Ala Ala Gln  
 1 5 10 15

Leu Ala Gly Pro Ala Ala Glu Ala Asp Pro Leu Gly Arg Phe Thr Cys  
 20 25 30

Pro Val Cys Leu Glu Val Tyr Glu Lys Pro Val Gln Val Pro Cys Gly  
 35 40 45

His Val Phe Cys Ser Ala Cys Leu Gln Glu Cys Leu Lys Pro Lys Lys  
 50 55 60

Pro Val Cys Gly Val Cys Arg Ser Ala Leu Ala Pro Gly Val Arg Ala  
 65 70 75 80

Val Glu Leu Glu Arg Gln Ile Glu Ser Thr Glu Thr Ser Cys His Gly  
 85 90 95

Cys Arg Lys Asn Phe Phe Leu Ser Lys Ile Arg Ser His Val Ala Thr  
 100 105 110

Cys Ser Lys Tyr Gln Asn Tyr Ile Met Glu Gly Val Lys Ala Thr Ile  
 115 120 125

Lys Asp Ala Ser Leu Gln Pro Arg Asn Val Pro Asn Arg Tyr Thr Phe  
 130 135 140

Pro Cys Pro Tyr Cys Pro Glu Lys Asn Phe Asp Gln Glu Gly Leu Val  
 145 150 155 160

Glu His Cys Lys Leu Phe His Ser Thr Asp Thr Lys Ser Val Val Cys  
 165 170 175

Pro Ile Cys Ala Ser Met Pro Trp Gly Asp Pro Asn Tyr Arg Ser Ala  
 180 185 190

Asn Phe Arg Glu His Ile Gln Arg Arg His Arg Phe Ser Tyr Asp Thr  
 195 200 205

Phe Val Asp Tyr Asp Val Asp Glu Glu Asp Met Met Asn Gln Val Leu  
 210 215 220

Gln Arg Ser Ile Ile Asp Gln  
 225 230

1346

&lt;210&gt; 1307

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1307

Gln Lys Gln Arg Thr Phe Trp Lys Tyr Tyr Tyr Asp Gly Lys Asp Tyr  
 1 5 10 15

Ile Glu Phe Asn Lys Glu Ile Pro Ala Trp Val Pro Phe Asp Pro Ala  
 20 25 30

Ala Gln Ile Thr Lys Gln Lys Trp Glu Ala Glu Pro Val Tyr Val Gln  
 35 40 45

Arg Ala Lys Ala Tyr Leu Glu Glu Glu Cys Pro Ala Thr Leu Arg Lys  
 50 55 60

Tyr Leu Lys Tyr Ser Lys Asn Ile Leu Asp Arg Gln Asp Pro Pro Ser  
 65 70 75 80

Val Val Val Thr Ser His Gln Ala Pro Gly Glu Lys Lys Lys Leu Lys  
 85 90 95

Cys Leu Ala Tyr Asp Phe Tyr Pro Gly Lys Ile Asp Val His Trp Thr  
 100 105 110

Arg Ala Gly Glu Val Gln Glu Pro Glu Leu Arg Gly Asp Val Leu His  
 115 120 125

Asn Gly Asn Gly Thr Tyr Gln Ser Trp Val Val Val Ala Val Pro Pro  
 130 135 140

Gln Asp Thr Ala Pro Tyr Ser Cys His Val Gln His Ser Ser Leu Ala  
 145 150 155 160

Gln Pro Leu Val Val Pro Trp Glu Ala Ser  
 165 170

&lt;210&gt; 1308

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1347

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1308

Cys	Ser	Cys	Thr	Val	Arg	Ala	Arg	Arg	Arg	Leu	Asn	Arg	Gly	Leu	Arg
1				5					10					15	
Arg	Lys	Gln	His	Ser	Leu	Leu	Lys	Arg	Leu	Arg	Lys	Ala	Lys	Lys	Glu
			20					25					30		
Ala	Pro	Pro	Met	Glu	Lys	Pro	Glu	Val	Val	Lys	Thr	His	Leu	Arg	Asp
			35				40					45			
Met	Ile	Ile	Leu	Pro	Glu	Met	Val	Gly	Ser	Met	Val	Gly	Val	Tyr	Asn
	50					55				60					
Gly	Lys	Thr	Phe	Asn	Gln	Val	Glu	Ile	Lys	Pro	Glu	Met	Ile	Gly	His
65					70					75				80	
Tyr	Leu	Gly	Glu	Phe	Ser	Ile	Thr	Tyr	Lys	Pro	Val	Lys	His	Xaa	Arg
				85					90					95	
Pro	Gly	Ile	Gly	Ala	Thr	His	Xaa	Ser	Arg	Phe	Ile	Pro	Leu	Lys	
			100						105				110		

&lt;210&gt; 1309

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1309

Pro	Val	Ser	Pro	Gln	Glu	Arg	Pro	Pro	Pro	Tyr	Leu	Ala	Val	Pro	Gly
1				5					10					15	
His	Gly	Glu	Glu	Tyr	Pro	Val	Ala	Gly	Ala	His	Ser	Ser	Pro	Pro	Lys
			20					25					30		
Ala	Arg	Phe	Leu	Arg	Val	Pro	Ser	Glu	His	Pro	Tyr	Leu	Thr	Pro	Ser
		35					40					45			
Pro	Glu	Ser	Pro	Glu	His	Trp	Ala	Ser	Pro	Ser	Pro	Pro	Ser	Leu	Ser
	50					55					60				
Asp	Trp	Ser	Glu	Ser	Thr	Pro	Ser	Pro	Ala	Thr	Ala	Thr	Gly	Ala	Met

1348

65                                      70                                      75                                      80

Ala Thr Thr Thr Gly Ala Leu Pro Ala Gln Pro Leu Pro Leu Ser Val  
85                                      90                                      95

Pro Ser Ser Leu Ala Gln Ala Gln Thr Gln Leu Gly Pro Gln Pro Glu  
100                                      105                                      110

Val Thr Pro Lys Arg Gln Val Leu Ala  
115                                      120

<210> 1310  
<211> 206  
<212> PRT  
<213> Homo sapiens

<400> 1310

Gln Cys Pro Gly Arg Ala Gly Ala Pro Gln Thr Arg Ala Pro Arg Ala  
1                                      5                                      10                                      15

Arg Glu Arg Gly Gly Ala Met Ala Thr Ala Asn Gly Ala Val Glu Asn  
20                                      25                                      30

Gly Gln Pro Asp Arg Lys Pro Pro Ala Leu Pro Arg Pro Ile Arg Asn  
35                                      40                                      45

Leu Glu Val Lys Phe Thr Lys Ile Phe Ile Asn Asn Glu Trp His Glu  
50                                      55                                      60

Ser Lys Ser Gly Lys Lys Phe Ala Thr Cys Asn Pro Ser Thr Arg Glu  
65                                      70                                      75                                      80

Gln Ile Cys Glu Val Glu Glu Gly Asp Lys Pro Asp Val Asp Lys Ala  
85                                      90                                      95

Val Glu Ala Ala Gln Val Ala Phe Gln Arg Gly Ser Pro Trp Arg Arg  
100                                      105                                      110

Leu Asp Ala Leu Ser Arg Gly Arg Leu Leu His Gln Leu Ala Asp Leu  
115                                      120                                      125

Val Glu Arg Asp Arg Ala Thr Leu Ala Ala Leu Glu Thr Met Asp Thr  
130                                      135                                      140

Gly Lys Pro Phe Leu His Ala Phe Phe Ile Asp Leu Glu Gly Cys Ile  
145                                      150                                      155                                      160

Arg Thr Leu Arg Tyr Phe Ala Gly Trp Ala Asp Lys Ile Gln Gly Lys  
165                                      170                                      175

1349

Thr Ile Pro Thr Asp Asp Asn Val Cys Ala Ser Pro Gly Met Ser Pro  
                   180                  185                  190

Leu Val Ser Val Gly Pro Ser Leu His Gly Thr Ser Pro Cys  
                   195                  200                  205

&lt;210&gt; 1311

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1311

Ser Trp Glu Thr Glu Lys Met Gln Thr Ala Gly Ala Leu Phe Ile Ser  
   1                  5                  10                  15

Pro Ala Leu Ile Arg Cys Cys Thr Arg Gly Leu Ile Arg Pro Val Ser  
                   20                  25                  30

Ala Ser Phe Leu Asn Ser Pro Val Asn Ser Ser Lys Gln Pro Ser Tyr  
                   35                  40                  45

Ser Asn Phe Pro Leu Gln Val Ala Arg Arg Glu Phe Gln Thr Ser Val  
                   50                  55                  60

Val Ser Arg Asp Ile Asp Thr Ala Ala Lys Phe Ile Gly Ala Gly Ala  
   65                  70                  75                  80

Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe  
                   85                  90                  95

Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln  
                   100                  105                  110

Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly  
                   115                  120                  125

Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met  
                   130                  135                  140

&lt;210&gt; 1312

&lt;211&gt; 495

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1350

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (392)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids'

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1312

Arg	Arg	Met	Glu	Gly	Gln	Asp	Glu	Val	Ser	Ala	Arg	Glu	Gln	His	Phe
1				5					10					15	

His	Ser	Gln	Val	Arg	Glu	Ser	Thr	Ile	Cys	Phe	Leu	Leu	Phe	Ala	Ile
			20					25					30		

Leu	Tyr	Val	Val	Ser	Tyr	Phe	Ile	Ile	Thr	Arg	Tyr	Lys	Arg	Lys	Ser
		35					40					45			

Asp	Glu	Gln	Glu	Asp	Glu	Asp	Ala	Ile	Val	Asn	Arg	Ile	Ser	Leu	Phe
	50					55					60				

Leu	Ser	Thr	Phe	Thr	Leu	Ala	Val	Ser	Ala	Gly	Ala	Val	Leu	Leu	Leu
65					70					75					80

Pro	Phe	Ser	Ile	Ile	Ser	Asn	Glu	Ile	Leu	Leu	Ser	Phe	Pro	Gln	Asn
				85					90					95	

Tyr	Tyr	Ile	Gln	Trp	Leu	Asn	Gly	Ser	Leu	Ile	His	Gly	Leu	Trp	Asn
			100				105						110		

Leu	Ala	Ser	Leu	Phe	Ser	Asn	Leu	Xaa	Leu	Phe	Val	Leu	Met	Pro	Phe
		115					120					125			

Ala	Phe	Phe	Phe	Leu	Glu	Ser	Glu	Gly	Phe	Ala	Gly	Leu	Lys	Lys	Gly
						135					140				

Ile	Arg	Ala	Arg	Ile	Leu	Glu	Thr	Leu	Val	Met	Leu	Leu	Leu	Leu	Ala
145					150					155					160

Leu	Leu	Ile	Leu	Gly	Ile	Val	Trp	Val	Ala	Ser	Ala	Leu	Ile	Asp	Asn
				165					170					175	

Asp	Ala	Ala	Ser	Met	Glu	Ser	Leu	Tyr	Asp	Leu	Trp	Glu	Phe	Tyr	Leu
				180				185					190		

Pro	Tyr	Leu	Tyr	Ser	Cys	Ile	Ser	Leu	Met	Gly	Cys	Leu	Leu	Leu	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1351

195					200					205					
Leu	Cys	Thr	Pro	Val	Gly	Leu	Ser	Arg	Met	Phe	Thr	Val	Met	Gly	Gln
210						215					220				
Leu	Leu	Val	Lys	Pro	Thr	Ile	Leu	Glu	Asp	Leu	Asp	Glu	Gln	Ile	Tyr
225					230					235					240
Ile	Ile	Thr	Leu	Glu	Glu	Glu	Ala	Leu	Gln	Arg	Arg	Leu	Asn	Gly	Leu
				245					250					255	
Ser	Ser	Ser	Val	Glu	Tyr	Asn	Ile	Met	Glu	Leu	Glu	Gln	Glu	Leu	Glu
			260					265					270		
Asn	Val	Lys	Thr	Leu	Lys	Thr	Lys	Leu	Asp	Pro	Trp	Ser	Ser	Phe	Ser
	275						280					285			
Val	Leu	Gln	Ser	Pro	Val	Trp	His	Phe	Ala	Ala	Gln	Thr	Pro	Ala	Asp
	290					295					300				
Ile	Val	Ser	Pro	Asp	Ser	His	Phe	Met	Leu	Ser	Thr	Gln	Gly	Met	Ser
305					310					315					320
Trp	Ala	Gln	Leu	Val	Phe	Leu	Leu	Pro	Ala	Ser	Arg	Pro	Gly	Asn	Ser
				325					330					335	
Gln	Asp	Lys	Arg	Arg	Lys	Lys	Ala	Ser	Ala	Trp	Glu	Arg	Asn	Leu	Val
			340					345					350		
Tyr	Pro	Ala	Val	Met	Val	Leu	Leu	Leu	Ile	Glu	Thr	Ser	Ile	Ser	Val
			355					360				365			
Leu	Leu	Val	Ala	Cys	Asn	Ile	Leu	Cys	Leu	Leu	Val	Asp	Glu	Thr	Ala
	370					375					380				
Met	Pro	Lys	Gly	Thr	Arg	Gly	Xaa	Gly	Ile	Gly	Asn	Ala	Ser	Leu	Ser
385					390					395					400
Thr	Phe	Gly	Phe	Val	Gly	Ala	Ala	Leu	Glu	Ile	Ile	Leu	Ile	Phe	Tyr
				405					410					415	
Leu	Met	Val	Ser	Ser	Val	Val	Gly	Phe	Tyr	Ser	Leu	Arg	Phe	Phe	Gly
			420					425					430		
Asn	Phe	Thr	Pro	Lys	Lys	Asp	Asp	Thr	Thr	Met	Thr	Lys	Ile	Ile	Gly
			435				440					445			
Asn	Cys	Val	Ser	Ile	Leu	Val	Leu	Ser	Ser	Ala	Xaa	Pro	Val	Met	Ser
	450						455				460				
Arg	Thr	Leu	Gly	Leu	His	Lys	Leu	His	Leu	Pro	Asn	Thr	Ser	Arg	Asp

1352

465                                      470                                      475                                      480

Ser Glu Thr Ala Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu  
    485                                      490                                      495

<210> 1313

<211> 790

<212> PRT

<213> Homo sapiens

<400> 1313

Gly Thr Arg Gly Thr Ala Thr Glu Arg Leu Lys Met Ile Pro Phe Leu  
   1   5   10   15

Pro Met Phe Ser Leu Leu Leu Leu Ile Val Asn Pro Ile Asn Ala  
    20   25   30

Asn Asn His Tyr Asp Lys Ile Leu Ala His Ser Arg Ile Arg Gly Arg  
    35   40   45

Asp Gln Gly Pro Asn Val Cys Ala Leu Gln Gln Ile Leu Gly Thr Lys  
    50   55   60

Lys Lys Tyr Phe Ser Thr Cys Lys Asn Trp Tyr Lys Lys Ser Ile Cys  
   65   70   75   80

Gly Gln Lys Thr Thr Val Leu Tyr Glu Cys Cys Pro Gly Tyr Met Arg  
    85   90   95

Met Glu Gly Met Lys Gly Cys Pro Ala Val Leu Pro Ile Asp His Val  
    100   105   110

Tyr Gly Thr Leu Gly Ile Val Gly Ala Thr Thr Thr Gln Arg Tyr Ser  
    115   120   125

Asp Ala Ser Lys Leu Arg Glu Glu Ile Glu Gly Lys Gly Ser Phe Thr  
    130   135   140

Tyr Phe Ala Pro Ser Asn Glu Ala Trp Asp Asn Leu Asp Ser Asp Ile  
   145   150   155   160

Arg Arg Gly Leu Glu Ser Asn Val Asn Val Glu Leu Leu Asn Ala Leu  
    165   170   175

His Ser His Met Ile Asn Lys Arg Met Leu Thr Lys Asp Leu Lys Asn  
    180   185   190

Gly Met Ile Ile Pro Ser Met Tyr Asn Asn Leu Gly Leu Phe Ile Asn  
    195   200   205



1353

His Tyr Pro Asn Gly Val Val Thr Val Asn Cys Ala Arg Ile Ile His  
 210 215 220

Gly Asn Gln Ile Ala Thr Asn Gly Val Val His Val Ile Asp Arg Val  
 225 230 235 240

Leu Thr Gln Ile Gly Thr Ser Ile Gln Asp Phe Ile Glu Ala Glu Asp  
 245 250 255

Asp Leu Ser Ser Phe Arg Ala Ala Ala Ile Thr Ser Asp Ile Leu Glu  
 260 265 270

Ala Leu Gly Arg Asp Gly His Phe Thr Leu Phe Ala Pro Thr Asn Glu  
 275 280 285

Ala Phe Glu Lys Leu Pro Arg Gly Val Leu Glu Arg Ile Met Gly Asp  
 290 295 300

Lys Val Ala Ser Glu Ala Leu Met Lys Tyr His Ile Leu Asn Thr Leu  
 305 310 315 320

Gln Cys Ser Glu Ser Ile Met Gly Gly Ala Val Phe Glu Thr Leu Glu  
 325 330 335

Gly Asn Thr Ile Glu Ile Gly Cys Asp Gly Asp Ser Ile Thr Val Asn  
 340 345 350

Gly Ile Lys Met Val Asn Lys Lys Asp Ile Val Thr Asn Asn Gly Val  
 355 360 365

Ile His Leu Ile Asp Gln Val Leu Ile Pro Asp Ser Ala Lys Gln Val  
 370 375 380

Ile Glu Leu Ala Gly Lys Gln Gln Thr Thr Phe Thr Asp Leu Val Ala  
 385 390 395 400

Gln Leu Gly Leu Ala Ser Ala Leu Arg Pro Asp Gly Glu Tyr Thr Leu  
 405 410 415

Leu Ala Pro Val Asn Asn Ala Phe Ser Asp Asp Thr Leu Ser Met Asp  
 420 425 430

Gln Arg Leu Leu Lys Leu Ile Leu Gln Asn His Ile Leu Lys Val Lys  
 435 440 445

Val Gly Leu Asn Glu Leu Tyr Asn Gly Gln Ile Leu Glu Thr Ile Gly  
 450 455 460

Gly Lys Gln Leu Arg Val Phe Val Tyr Arg Thr Ala Val Cys Ile Glu  
 465 470 475 480

1354

Asn	Ser	Cys	Met	Glu	Lys	Gly	Ser	Lys	Gln	Gly	Arg	Asn	Gly	Ala	Ile		
				485					490					495			
His	Ile	Phe	Arg	Glu	Ile	Ile	Lys	Pro	Ala	Glu	Lys	Ser	Leu	His	Glu		
			500					505					510				
Lys	Leu	Lys	Gln	Asp	Lys	Arg	Phe	Ser	Thr	Phe	Leu	Ser	Leu	Leu	Glu		
		515					520					525					
Ala	Ala	Asp	Leu	Lys	Glu	Leu	Leu	Thr	Gln	Pro	Gly	Asp	Trp	Thr	Leu		
	530						535				540						
Phe	Val	Pro	Thr	Asn	Asp	Ala	Phe	Lys	Gly	Met	Thr	Ser	Glu	Glu	Lys		
545					550					555					560		
Glu	Ile	Leu	Ile	Arg	Asp	Lys	Asn	Ala	Leu	Gln	Asn	Ile	Ile	Leu	Tyr		
				565					570					575			
His	Leu	Thr	Pro	Gly	Val	Phe	Ile	Gly	Lys	Gly	Phe	Glu	Pro	Gly	Val		
			580					585					590				
Thr	Asn	Ile	Leu	Lys	Thr	Thr	Gln	Gly	Ser	Lys	Ile	Phe	Leu	Lys	Glu		
	595						600					605					
Val	Asn	Asp	Thr	Leu	Leu	Val	Asn	Glu	Leu	Lys	Ser	Lys	Glu	Ser	Asp		
	610					615					620						
Ile	Met	Thr	Thr	Asn	Gly	Val	Ile	His	Val	Val	Asp	Lys	Leu	Leu	Tyr		
625					630					635					640		
Pro	Ala	Asp	Thr	Pro	Val	Gly	Asn	Asp	Gln	Leu	Leu	Glu	Ile	Leu	Asn		
			645						650					655			
Lys	Leu	Ile	Lys	Tyr	Ile	Gln	Ile	Lys	Phe	Val	Arg	Gly	Ser	Thr	Phe		
		660						665					670				
Lys	Glu	Ile	Pro	Val	Thr	Val	Tyr	Lys	Pro	Ile	Ile	Lys	Lys	Tyr	Thr		
	675						680					685					
Lys	Ile	Ile	Asp	Gly	Val	Pro	Val	Glu	Ile	Thr	Glu	Lys	Glu	Thr	Arg		
	690					695				700							
Glu	Glu	Arg	Ile	Ile	Thr	Gly	Pro	Glu	Ile	Lys	Tyr	Thr	Arg	Ile	Ser		
705					710					715					720		
Thr	Gly	Gly	Gly	Glu	Thr	Glu	Glu	Thr	Leu	Lys	Lys	Leu	Leu	Gln	Glu		
				725					730					735			
Glu	Val	Thr	Lys	Val	Thr	Lys	Phe	Ile	Glu	Gly	Gly	Asp	Gly	His	Leu		
			740						745					750			

1355

Phe Glu Asp Glu Glu Ile Lys Arg Leu Leu Gln Gly Asp Thr Pro Val  
 755 760 765

Arg Lys Leu Gln Ala Asn Lys Lys Val Gln Gly Ser Arg Arg Arg Leu  
 770 775 780

Arg Glu Gly Arg Ser Gln  
 785 790

<210> 1314

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1314

Thr Ser Trp Ala Phe Asp Glu Thr Gly Xaa Asn Thr Ala Val Phe Leu  
 1 5 10 15

Leu Glu Ile Xaa Trp Gly Ile Phe Phe Glu Leu Met Gly Thr Ile Arg  
 20 25 30

His Asn Cys Leu His Lys Leu Gly Ile Xaa Asp Phe Gly Ile Thr Ile  
 35 40 45

Tyr Gln Asn Gly Asp Ile Ser Pro Leu Val Leu Arg Cys Lys Pro Lys  
 50 55 60

Asn Ile Met Thr Ser Phe Gln Ala Ser  
 65 70

<210> 1315

1356

&lt;211&gt; 268

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1315

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Pro Gly Arg Pro Thr Arg Pro Arg Thr Arg Gly Ile Asn Lys Leu Ile
  1             5             10             15

Arg Ile Gly Arg Asn Glu Cys Val Val Val Ile Arg Val Asp Lys Glu
      20             25             30

Lys Gly Tyr Ile Asp Leu Ser Lys Arg Arg Val Ser Pro Glu Glu Ala
      35             40             45

Ile Lys Cys Glu Asp Lys Phe Thr Lys Ser Lys Thr Val Tyr Ser Ile
      50             55             60

Leu Arg His Val Ala Glu Val Leu Glu Tyr Thr Lys Asp Glu Gln Leu
      65             70             75             80

Glu Ser Leu Phe Gln Arg Thr Ala Trp Val Phe Asp Asp Lys Tyr Lys
      85             90             95

Arg Pro Gly Tyr Gly Ala Tyr Asp Ala Phe Lys His Ala Val Ser Asp
      100            105            110

Pro Ser Ile Leu Asp Ser Leu Asp Leu Asn Glu Asp Glu Arg Glu Val
      115            120            125

Leu Ile Asn Asn Ile Asn Arg Arg Leu Thr Pro Gln Ala Val Lys Ile
      130            135            140

Arg Ala Asp Ile Glu Val Ala Cys Tyr Gly Tyr Glu Gly Ile Asp Ala
      145            150            155            160

Val Lys Glu Ala Leu Arg Ala Gly Leu Asn Cys Ser Thr Glu Asn Met
      165            170            175

Pro Ile Lys Ile Asn Leu Ile Ala Pro Pro Arg Tyr Val Met Thr Thr
      180            185            190

Thr Thr Leu Glu Arg Thr Glu Gly Leu Ser Val Leu Ser Gln Ala Met
      195            200            205

Ala Val Ile Lys Glu Lys Ile Glu Glu Lys Arg Gly Val Phe Asn Val
      210            215            220

Gln Met Glu Pro Lys Val Val Thr Asp Thr Asp Glu Thr Glu Leu Ala
      225            230            235            240

Arg Gln Met Glu Arg Leu Glu Arg Glu Asn Ala Glu Val Asp Gly Asp

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1357

	245		250		255
Asp Asp Ala Glu Glu Met Glu Ala Lys Ala Glu Asp					
260		265			
<210> 1316					
<211> 315					
<212> PRT					
<213> Homo sapiens					
<400> 1316					
Gly Gln Arg Ala Gly Met Pro His Ala Gln Gly Gly Trp Ser Gly Pro					
1	5	10	15		
Ala Ala Asp Ser Ala Glu Pro Ala Leu Pro Ala Gly Glu Pro Gly Gly					
20	25	30			
Pro Thr Leu Met Arg Leu Asn Ser Val Gln Ser Ser Glu Arg Pro Leu					
35	40	45			
Phe Leu Val His Pro Ile Glu Gly Ser Thr Thr Val Phe His Ser Leu					
50	55	60			
Ala Ser Arg Leu Ser Ile Pro Thr Tyr Gly Leu Gln Cys Thr Arg Ala					
65	70	75	80		
Ala Pro Leu Asp Ser Ile His Ser Leu Ala Ala Tyr Tyr Ile Asp Cys					
85	90	95			
Ile Arg Gln Val Gln Pro Glu Gly Pro Tyr Arg Val Ala Gly Tyr Ser					
100	105	110			
Tyr Gly Ala Cys Val Ala Phe Glu Met Cys Ser Gln Leu Gln Ala Gln					
115	120	125			
Gln Ser Pro Ala Pro Thr His Asn Ser Leu Phe Leu Phe Asp Gly Ser					
130	135	140			
Pro Thr Tyr Val Leu Ala Tyr Thr Gln Ser Tyr Arg Ala Lys Leu Thr					
145	150	155	160		
Pro Gly Cys Glu Ala Glu Ala Glu Thr Glu Ala Ile Cys Phe Phe Val					
165	170	175			
Gln Gln Phe Thr Asp Met Glu His Asn Arg Val Leu Glu Ala Leu Leu					
180	185	190			
Pro Leu Lys Gly Leu Glu Glu Arg Val Ala Ala Ala Val Asp Leu Ile					
195	200	205			

1358

Ile Lys Ser His Gln Gly Leu Asp Arg Gln Glu Leu Ser Phe Ala Ala  
210 215 220

Arg Ser Phe Tyr Tyr Lys Leu Arg Ala Ala Glu Gln Tyr Thr Pro Lys  
225 230 235 240

Ala Lys Tyr His Gly Asn Val Met Leu Leu Arg Ala Lys Thr Gly Gly  
245 250 255

Ala Tyr Gly Glu Asp Leu Gly Ala Asp Tyr Asn Leu Ser Gln Val Cys  
260 265 270

Asp Gly Lys Val Ser Val His Val Ile Glu Gly Asp His Arg Thr Leu  
275 280 285

Leu Glu Gly Ser Gly Leu Glu Ser Ile Ile Ser Ile Ile His Ser Ser  
290 295 300

Leu Ala Glu Pro Arg Val Ser Val Arg Glu Gly  
305 310 315

&lt;210&gt; 1317

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1359

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (186)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1317

Thr Thr Xaa Val Xaa Asp Arg Leu Leu Xaa Thr Ser Gly Ser Pro Gly  
 1 5 10 15

Thr Asp Arg Xaa Phe Gly His Glu Xaa Glu Met Ala Pro Asn Ala Ser  
 20 25 30

Cys Leu Cys Val His Val Arg Ser Glu Glu Trp Asp Leu Met Thr Phe  
 35 40 45

Asp Ala Asn Pro Tyr Asp Ser Val Lys Lys Ile Lys Glu His Val Arg  
 50 55 60

Ser Lys Thr Lys Val Pro Val Gln Asp Gln Val Leu Leu Leu Gly Ser  
 65 70 75 80

Lys Ile Leu Lys Pro Arg Arg Ser Leu Ser Ser Tyr Gly Ile Asp Lys  
 85 90 95

Glu Lys Thr Ile His Leu Thr Leu Lys Val Val Lys Pro Ser Asp Glu  
 100 105 110

Glu Leu Pro Leu Phe Leu Val Glu Ser Gly Asp Glu Ala Lys Arg His  
 115 120 125

Leu Leu Gln Val Arg Arg Ser Ser Ser Val Ala Gln Val Lys Ala Met  
 130 135 140

Ile Glu Thr Lys Thr Gly Ile Ile Pro Glu Thr Gln Ile Val Thr Cys  
 145 150 155 160

Asn Gly Lys Arg Leu Glu Asp Gly Lys Met Met Ala Asp Tyr Gly Ile  
 165 170 175

Arg Lys Gly Asn Leu Leu Phe Leu Ala Xaa Tyr Cys Ile Gly Gly  
 180 185 190

&lt;210&gt; 1318

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1360

&lt;400&gt; 1318

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Arg Asn Leu Gln Glu Thr Ala Ile Met Ala Glu Lys Pro Lys Leu His
 1             5             10             15

Tyr Phe Asn Ala Arg Gly Arg Met Glu Ser Thr Arg Trp Leu Leu Ala
      20             25             30

Ala Ala Gly Val Glu Phe Glu Glu Lys Phe Ile Lys Ser Ala Glu Asp
      35             40             45

Leu Asp Lys Leu Arg Asn Asp Gly Tyr Leu Met Phe Gln Gln Val Pro
      50             55             60

Met Val Glu Ile Asp Gly Met Lys Leu Val Gln Thr Arg Ala Ile Leu
      65             70             75             80

Asn Tyr Ile Ala Ser Lys Tyr Asn Leu Tyr Gly Lys Asp Ile Lys Glu
      85             90             95

Arg Ala Leu Ile Asp Met Tyr Ile Glu Gly Ile Ala Asp Leu Gly Glu
      100             105             110

Met Ile Leu Leu Leu Pro Val Cys Pro Pro Glu Glu Lys Asp Ala Lys
      115             120             125

Leu Ala Leu Ile Lys Glu Lys Ile Lys Asn Arg Tyr Phe Pro Ala Phe
      130             135             140

Glu Lys Val Leu Lys Ser His Gly Gln Asp Tyr Leu Val Gly Asn Lys
      145             150             155             160

Leu Ser Arg Ala Asp Ile His Leu Val Glu Leu Leu Tyr Tyr Val Glu
      165             170             175

Glu Leu Asp Ser Ser Leu Ile Ser Ser Phe Pro Leu Leu Lys Ala Leu
      180             185             190

Lys Thr Arg Ile Ser Asn Leu Pro Thr Val Lys Lys Phe Leu Gln Pro
      195             200             205

Gly Ser Pro Arg Lys Pro Pro Met Asp Glu Lys Ser Leu Glu Glu Ala
      210             215             220

Arg Lys Ile Phe Arg Phe
      225             230

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&lt;210&gt; 1319

&lt;211&gt; 279



1361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1319

Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile  
 1 5 10 15  
 Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser  
 20 25 30  
 Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg  
 35 40 45  
 Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu  
 50 55 60  
 Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro  
 65 70 75 80  
 Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn  
 85 90 95  
 Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg  
 100 105 110  
 Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser  
 115 120 125  
 Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly  
 130 135 140  
 Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp  
 145 150 155 160  
 Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser  
 165 170 175  
 Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala  
 180 185 190  
 Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu  
 195 200 205  
 Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp  
 210 215 220  
 Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp  
 225 230 235 240  
 Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr  
 245 250 255

1362

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser  
 260 265 270

Val Leu Leu Gln Leu Pro Gln  
 275

<210> 1320

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1320

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala  
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln  
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu  
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln  
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp  
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val  
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala  
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys  
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile  
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp  
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu  
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu  
 180 185 190

1363

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val  
195 200 205

Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val  
210 215 220

Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His  
225 230 235 240

Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr  
245 250 255

Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly  
260 265 270

Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly  
275 280 285

Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly  
290 295 300

Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe  
305 310 315 320

Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp  
325 330 335

Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe  
340 345 350

Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu  
355 360 365

Ala Ile Glu Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala  
370 375 380

Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu  
385 390 395 400

Phe Gln Arg Trp Leu Gln  
405

&lt;210&gt; 1321

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1364

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1321

Gln Ser Ala Cys Ser Leu Leu Pro Glu Met Pro Arg Ile Leu Thr Arg  
 1 5 10 15

Thr Pro Ser Ser Arg Met Ile Val Leu Arg Leu Met Pro Val Gly Gly  
 20 25 30

Arg Arg Pro Ile Val Thr Ser Phe Gly Gly Cys Ser Thr Ala Pro Arg  
 35 40 45

Ala Asn Phe Pro Leu Pro Xaa Pro Ala Leu Arg Gln Ser Arg Ser Lys  
 50 55 60

Met Ala Val Val Gly Val Ser Ser Val Ser Arg Leu Leu Gly Arg Ser  
 65 70 75 80

Arg Pro Gln Leu Gly Arg Pro Met Ser Ser Gly Ala His Gly Glu Glu  
 85 90 95

Gly Ser Ala Arg Met Trp Lys Thr Leu Thr Phe Phe Val Ala Leu Pro  
 100 105 110

Gly Val Ala Val Ser Met Leu Asn Val Tyr Leu Lys Ser His His Gly  
 115 120 125

Glu His Glu Arg Pro Glu Phe Ile Ala Tyr Pro His Leu Arg Ile Arg  
 130 135 140

Thr Lys Pro Phe Pro Trp Gly Asp Gly Asn His Thr Leu Phe His Asn  
 145 150 155 160

Pro His Val Asn Pro Leu Pro Thr Gly Tyr Glu Asp Glu  
 165 170

&lt;210&gt; 1322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1322

Lys Thr Gln Ala Ala Ser Val Glu Ala Val Lys Met Leu Asp Glu Ile  
 1 5 10 15

Leu Leu Gln Leu Ser Ala Ser Val Pro Val Asp Val Met Pro Gly Glu  
 20 25 30

1365

Phe Asp Pro Thr Asn Tyr Thr Leu Pro Gln Gln Pro Leu His Pro Cys  
           35                          40                          45  
 Met Phe Pro Leu Ala Thr Ala Tyr Ser Thr Leu Gln Leu Val Thr Asn  
           50                          55                          60  
 Pro Tyr Gln Ala Thr Ile Asp Gly Val Arg Phe Leu Gly Thr Ser Gly  
           65                          70                          75                          80  
 Gln Asn Val Ser Asp Ile Phe Arg Tyr Ser Ser Met Glu Asp His Leu  
                           85                          90                          95  
 Glu Ile Leu Glu Trp Thr Leu Arg Val Arg His Ile Ser Pro Thr Ala  
                           100                          105                          110  
 Pro Asp Thr Leu Gly Cys Tyr Pro Phe Tyr Lys Thr Asp Pro Phe Ile  
           115                          120                          125  
 Phe Pro Glu Cys Pro His Val Tyr Phe Cys Gly Asn Thr Pro Ser Phe  
           130                          135                          140  
 Gly Ser Lys Ile Ile Arg Gly Pro Glu Asp Gln Thr Val Leu Leu Val  
           145                          150                          155                          160  
 Thr Val Pro Asp Phe Ser Ala Thr Gln Thr Ala Cys Leu Val Asn Leu  
                           165                          170                          175  
 Arg Ser Leu Ala Cys Gln Pro Ile Ser Phe Ser Gly Phe Gly Ala Glu  
           180                          185                          190  
 Asp Asp Asp Leu Gly Gly Leu Gly Trp Ala Pro Asp Ser Lys Lys Trp  
           195                          200                          205

Phe

&lt;210&gt; 1323

&lt;211&gt; 291

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

1366

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1323

Asn	Asn	Val	Ala	Thr	Thr	His	Glu	Pro	Ala	Ser	Val	Pro	Ala	Pro	Gln
1				5				10					15		

Gly	Asp	Leu	Leu	Ser	Gly	Ala	Glu	Pro	Glu	Gly	Gly	Asn	Xaa	Ala	Arg
		20						25					30		

Arg	Pro	Pro	Gly	Ala	Arg	Glu	Gln	Pro	Gln	Ser	Pro	Pro	Pro	Ala	Arg
		35					40					45			

Gly	Gly	Ala	Gly	Ser	Leu	Ala	Thr	Xaa	Ala	Pro	Pro	Ser	Ser	Gly	Leu
	50					55					60				

Ser	Cys	Pro	Gly	Cys	Phe	Arg	Leu	Arg	Leu	Trp	Met	Leu	Arg	Leu	Ser
65					70					75					80

Glu	Arg	Asn	Met	Lys	Val	Leu	Leu	Ala	Ala	Ala	Leu	Ile	Ala	Gly	Ser
				85					90					95	

Val	Phe	Phe	Leu	Leu	Leu	Pro	Gly	Pro	Ser	Ala	Ala	Asp	Glu	Lys	Lys
			100					105					110		

Lys	Gly	Pro	Lys	Val	Thr	Val	Lys	Val	Tyr	Phe	Asp	Leu	Arg	Ile	Gly
		115					120					125			

Asp	Glu	Asp	Val	Gly	Arg	Val	Ile	Phe	Gly	Leu	Phe	Gly	Lys	Thr	Val
	130					135					140				

Pro	Lys	Thr	Val	Asp	Asn	Phe	Val	Ala	Leu	Ala	Thr	Gly	Glu	Lys	Gly
145					150					155					160

Phe	Gly	Tyr	Lys	Asn	Ser	Lys	Phe	His	Arg	Val	Ile	Lys	Asp	Phe	Met
			165						170					175	

Ile	Gln	Gly	Gly	Asp	Phe	Thr	Arg	Gly	Asp	Gly	Thr	Gly	Gly	Lys	Ser
		180						185					190		

Ile	Tyr	Gly	Glu	Arg	Phe	Pro	Asp	Glu	Asn	Phe	Lys	Leu	Lys	His	Tyr
	195						200					205			

Gly	Pro	Gly	Trp	Val	Ser	Met	Ala	Asn	Ala	Gly	Lys	Asp	Thr	Asn	Gly
	210					215					220				

Ser	Gln	Phe	Phe	Ile	Thr	Thr	Val	Lys	Thr	Ala	Trp	Leu	Asp	Gly	Lys
225					230					235					240

His	Val	Val	Phe	Gly	Lys	Val	Leu	Glu	Gly	Met	Glu	Val	Val	Arg	Lys
				245					250					255	

1367

Val Glu Ser Thr Lys Thr Asp Ser Arg Asp Lys Pro Leu Lys Asp Val  
260 265 270

Ile Ile Ala Asp Cys Gly Lys Ile Glu Val Glu Lys Pro Phe Ala Ile  
275 280 285

Ala Lys Glu  
290

&lt;210&gt; 1324

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1324

Glu Cys Leu Val Arg Ser Lys Asn Ile Thr Gln Ile Val Gly His Ser  
1 5 10 15

Gly Cys Glu Ala Lys Ser Ile Gln Asn Arg Ala Cys Leu Gly Gln Cys  
20 25 30

Phe Ser Tyr Ser Val Pro Asn Thr Phe Pro Gln Ser Thr Glu Ser Leu  
35 40 45

Val His Cys Asp Ser Cys Met Pro Ala Gln Ser Met Trp Glu Ile Val  
50 55 60

Thr Leu Glu Cys Pro Gly His Glu Glu Val Pro Arg Val Asp Lys Leu  
65 70 75 80

Val Glu Lys Ile Leu His Cys Ser Cys Gln Ala Cys Gly Lys Glu Pro  
85 90 95

Ser His Glu Gly Leu Ser Val Tyr Val Gln Gly Glu Asp Gly Pro Gly  
100 105 110

Ser Gln Pro Gly Thr His Pro His Pro His Pro His Pro His Pro Gly  
115 120 125

Gly Gln Thr Pro Glu Pro Glu Asp Pro Pro Gly Ala Pro His Thr Glu  
130 135 140

Glu Glu Gly Ala Glu Asp  
145 150

&lt;210&gt; 1325

&lt;211&gt; 56

1368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1325

Glu Ile Asn Ile Ser Arg Lys Gly Glu Ser Arg Phe Tyr Lys Met Ser  
1 5 10 15

Gln Leu Ser Asn Ile Trp Gly Ser Asp Ser Phe Phe Val Arg Thr Phe  
20 25 30

Glu Thr Ser Lys Gln Pro Leu Phe Leu Lys Asn Ser Gly Phe Thr Leu  
35 40 45

Thr His Val Ser Phe Thr Pro Phe  
50 55

&lt;210&gt; 1326

&lt;211&gt; 486

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (438)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (447)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1326

Arg Leu Pro Leu Gly Ser Arg Ser Pro Ser Glu Ala Ala Gly Ala Glu  
1 5 10 15

Thr Ala Pro Ser Ser Leu Ser Ala Ala Met Thr Pro Leu Val Ser Arg  
20 25 30

Leu Xaa Arg Leu Trp Ala Ile Met Arg Lys Pro Arg Ala Ala Val Gly  
35 40 45

Ser Gly His Arg Lys Gln Ala Ala Ser Gln Glu Gly Arg Gln Lys His  
50 55 60



1369

Ala	Lys	Asn	Asn	Ser	Gln	Ala	Lys	Pro	Ser	Ala	Cys	Asp	Gly	Leu	Ala	
65					70					75					80	
Arg	Gln	Pro	Glu	Glu	Val	Val	Leu	Gln	Ala	Ser	Val	Ser	Ser	Tyr	His	
				85					90					95		
Leu	Phe	Arg	Asp	Val	Ala	Glu	Val	Thr	Ala	Phe	Arg	Gly	Ser	Leu	Leu	
			100					105					110			
Ser	Trp	Tyr	Asp	Gln	Glu	Lys	Arg	Asp	Leu	Pro	Trp	Arg	Arg	Arg	Ala	
		115					120					125				
Glu	Asp	Glu	Met	Asp	Leu	Asp	Arg	Arg	Ala	Tyr	Ala	Val	Trp	Val	Ser	
	130					135					140					
Glu	Val	Met	Leu	Gln	Gln	Thr	Gln	Val	Ala	Thr	Val	Ile	Asn	Tyr	Tyr	
145					150					155					160	
Thr	Gly	Trp	Met	Gln	Lys	Trp	Pro	Thr	Leu	Gln	Asp	Leu	Ala	Ser	Ala	
				165					170					175		
Ser	Leu	Glu	Glu	Val	Asn	Gln	Leu	Trp	Ala	Gly	Leu	Gly	Tyr	Tyr	Ser	
			180					185					190			
Arg	Gly	Arg	Arg	Leu	Gln	Glu	Gly	Ala	Arg	Lys	Val	Val	Glu	Glu	Leu	
		195					200						205			
Gly	Gly	His	Met	Pro	Arg	Thr	Ala	Glu	Thr	Leu	Gln	Gln	Leu	Leu	Pro	
	210					215					220					
Gly	Val	Gly	Arg	Tyr	Thr	Ala	Gly	Ala	Ile	Ala	Ser	Ile	Ala	Phe	Gly	
225					230				235						240	
Gln	Ala	Thr	Gly	Val	Val	Asp	Gly	Asn	Val	Ala	Arg	Val	Leu	Cys	Arg	
				245					250					255		
Val	Arg	Ala	Ile	Gly	Ala	Asp	Pro	Ser	Ser	Thr	Leu	Val	Ser	Gln	Gln	
			260					265					270			
Leu	Trp	Gly	Leu	Ala	Gln	Gln	Leu	Val	Asp	Pro	Ala	Arg	Pro	Gly	Asp	
		275					280					285				
Phe	Asn	Gln	Ala	Ala	Met	Glu	Leu	Gly	Ala	Thr	Val	Cys	Thr	Pro	Gln	
					290			295			300					
Arg	Pro	Leu	Cys	Ser	Gln	Cys	Pro	Val	Glu	Ser	Leu	Cys	Arg	Ala	Arg	
305					310					315					320	
Gln	Arg	Val	Glu	Gln	Glu	Gln	Leu	Leu	Ala	Ser	Gly	Ser	Leu	Ser	Gly	
				325					330						335	

1370

Ser Pro Asp Val Glu Glu Cys Ala Pro Asn Thr Gly Gln Cys His Leu  
                   340                  345                  350  
 Cys Leu Pro Pro Ser Glu Pro Trp Asp Gln Thr Leu Gly Val Val Asn  
                   355                  360                  365  
 Phe Pro Arg Lys Ala Ser Arg Lys Pro Pro Arg Glu Glu Ser Ser Ala  
                   370                  375                  380  
 Thr Cys Val Leu Glu Gln Pro Gly Ala Leu Gly Ala Gln Ile Leu Leu  
                   385                  390                  395                  400  
 Val Gln Arg Pro Asn Ser Gly Leu Leu Ala Gly Leu Trp Glu Phe Pro  
                   405                  410                  415  
 Ser Val Thr Trp Glu Pro Ser Glu Gln Leu Gln Arg Lys Ala Leu Leu  
                   420                  425                  430  
 Gln Glu Leu Gln Arg Xaa Ala Gly Pro Leu Pro Ala Thr His Xaa Arg  
                   435                  440                  445  
 His Leu Gly Glu Val Val His Thr Phe Ser His Ile Lys Leu Thr Tyr  
                   450                  455                  460  
 Gln Val Tyr Gly Leu Ala Leu Glu Gly Gln Thr Pro Val Thr Thr Val  
                   465                  470                  475                  480  
 Pro Pro Gly Ala Arg Cys  
                   485

&lt;210&gt; 1327

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1327

Lys Thr Leu Phe Thr Tyr Ser Phe His Gly Tyr Asn Thr Leu Ala Asp  
   1                  5                  10                  15  
 Phe Leu Leu Ala Leu Gly Ala Met Ile Leu Ile Thr Phe Cys Lys Val  
                   20                  25                  30  
 Thr Asn Val Ile His Ser Thr Leu Cys Gly Ser His Leu Phe Arg Leu  
                   35                  40                  45  
 Met Cys Phe Gly Glu Arg Lys Lys Phe Leu Ala Glu Tyr Tyr Phe Glu  
                   50                  55                  60  
 Leu Ser Arg Thr Leu Ser His Gln Arg Gln Phe Phe Ser Val Gln Phe

65                      70                      75                      80

Pro Ile Pro Asp Asn Leu Leu Lys  
85

<210> 1328  
<211> 424  
<212> PRT  
<213> Homo sapiens

<400> 1328

Ile Arg Val Ser Phe Met Asn Asn Gln Lys Gln Gln Lys Pro Thr Leu  
1                      5                      10                      15

Ser Gly Gln Arg Phe Lys Thr Arg Lys Arg Asp Glu Lys Glu Arg Phe  
20                      25                      30

Asp Pro Thr Gln Phe Gln Asp Cys Ile Ile Gln Gly Leu Thr Glu Thr  
35                      40                      45

Gly Thr Asp Leu Glu Ala Val Ala Lys Phe Leu Asp Ala Ser Gly Ala  
50                      55                      60

Lys Leu Asp Tyr Arg Arg Tyr Ala Glu Thr Leu Phe Asp Ile Leu Val  
65                      70                      75                      80

Ala Gly Gly Met Leu Ala Pro Gly Gly Thr Leu Ala Asp Asp Met Met  
85                      90                      95

Arg Thr Asp Val Cys Val Phe Ala Ala Gln Glu Asp Leu Glu Thr Met  
100                      105                      110

Gln Ala Phe Ala Gln Val Phe Asn Lys Leu Ile Arg Arg Tyr Lys Tyr  
115                      120                      125

Leu Glu Lys Gly Phe Glu Asp Glu Val Lys Lys Leu Leu Leu Phe Leu  
130                      135                      140

Lys Gly Phe Ser Glu Ser Glu Arg Asn Lys Leu Ala Met Leu Thr Gly  
145                      150                      155                      160

Val Leu Leu Ala Asn Gly Thr Leu Asn Ala Ser Ile Leu Asn Ser Leu  
165                      170                      175

Tyr Asn Glu Asn Leu Val Lys Glu Gly Val Ser Ala Ala Phe Ala Val  
180                      185                      190

Lys Leu Phe Lys Ser Trp Ile Asn Glu Lys Asp Ile Asn Ala Val Ala  
195                      200                      205

1372

Ala Ser Leu Arg Lys Val Ser Met Asp Asn Arg Leu Met Glu Leu Phe  
 210 215 220  
 Pro Ala Asn Lys Gln Ser Val Glu His Phe Thr Lys Tyr Phe Thr Glu  
 225 230 235 240  
 Ala Gly Leu Lys Glu Leu Ser Glu Tyr Val Arg Asn Gln Gln Thr Ile  
 245 250 255  
 Gly Ala Arg Lys Glu Leu Gln Lys Glu Leu Gln Glu Gln Met Ser Arg  
 260 265 270  
 Gly Asp Pro Phe Lys Asp Ile Ile Leu Tyr Val Lys Glu Glu Met Lys  
 275 280 285  
 Lys Asn Asn Ile Pro Glu Pro Val Val Ile Gly Ile Val Trp Ser Ser  
 290 295 300  
 Val Met Ser Thr Val Glu Trp Asn Lys Lys Glu Glu Leu Val Ala Glu  
 305 310 315 320  
 Gln Ala Ile Lys His Leu Lys Gln Tyr Ser Pro Leu Leu Ala Ala Phe  
 325 330 335  
 Thr Thr Gln Gly Gln Ser Glu Leu Thr Leu Leu Leu Lys Ile Gln Glu  
 340 345 350  
 Tyr Cys Tyr Asp Asn Ile His Phe Met Lys Ala Phe Gln Lys Ile Val  
 355 360 365  
 Val Leu Phe Tyr Lys Ala Glu Val Leu Ser Glu Glu Pro Ile Leu Lys  
 370 375 380  
 Trp Tyr Lys Asp Ala His Val Ala Lys Gly Lys Ser Val Phe Leu Glu  
 385 390 395 400  
 Gln Met Lys Lys Phe Val Glu Trp Leu Lys Asn Ala Glu Glu Glu Ser  
 405 410 415  
 Glu Ser Glu Ala Glu Glu Gly Asp  
 420

&lt;210&gt; 1329

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1329

1373

Trp Tyr Cys Ser Val Gly Leu Ala Ser Thr Ala Gly Glu Gln Ala Ala  
 1 5 10 15  
 Ala Val Ala Ala Ala Phe Ser Leu His Pro Asp Tyr Ala Met Leu Gly  
 20 25 30  
 Phe Val Gly Arg Val Ala Ala Ala Pro Ala Ser Gly Ala Leu Arg Arg  
 35 40 45  
 Leu Thr Pro Ser Ala Ser Leu Pro Pro Ala Gln Leu Leu Leu Arg Ala  
 50 55 60  
 Ala Pro Thr Ala Val His Pro Val Arg Asp Tyr Ala Ala Gln Thr Ser  
 65 70 75 80  
 Pro Ser Pro Lys Ala Gly Ala Ala Thr Gly Arg Ile Val Ala Val Ile  
 85 90 95  
 Gly Ala Val Val Asp Val Gln Phe Asp Glu Gly Leu Pro Pro Ile Leu  
 100 105 110  
 Asn Ala Leu Glu Val Gln Gly Arg Glu Thr Arg Leu Val Leu Glu Val  
 115 120 125  
 Ala Gln His Leu Gly Glu Ser Thr Val Arg Thr Ile Ala Met Asp Gly  
 130 135 140  
 Thr Glu Gly Leu Val Arg Gly Gln Lys Val Leu Asp Ser Gly Ala Pro  
 145 150 155 160  
 Ile Lys Ile Pro Val Gly Pro Glu Thr Leu Gly Arg Ile Met Asn Val  
 165 170 175  
 Ile Gly Glu Pro Ile Asp Glu Arg Gly Pro Ile Lys Thr Lys Gln Phe  
 180 185 190  
 Ala Pro Ile His Ala Glu Ala Pro Glu Phe Met Glu Met Ser Val Glu  
 195 200 205  
 Gln Glu Ile Leu Val Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro  
 210 215 220  
 Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly  
 225 230 235 240  
 Lys Thr Val Leu Ile Met Glu Leu Ile Asn Asn Val Ala Lys Ala His  
 245 250 255  
 Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly  
 260 265 270

1374

Asn Asp Leu Tyr His Glu Met Ile Glu Ser Gly Val Ile Asn Leu Lys  
 275 280 285

Asp Ala Thr Ser Lys Val Ala Leu Val Tyr Gly Gln Met Asn Glu Pro  
 290 295 300

Pro Gly Ala Arg Ala Arg Val Ala Leu Thr Gly Leu Thr Val Ala Glu  
 305 310 315 320

Tyr Phe Arg Asp Gln Glu Gly Gln Asp Val Leu Leu Phe Ile Asp Asn  
 325 330 335

Ile Phe Arg Phe Thr Gln Ala Gly Ser Glu Val Ser Ala Leu Leu Gly  
 340 345 350

Arg Ile Pro Ser Ala Val Gly Tyr Gln Pro Thr Leu Ala Thr Asp Met  
 355 360 365

Gly Thr Met Gln Glu Arg Ile Thr Thr Thr Lys Lys Gly Ser Ile Thr  
 370 375 380

Ser Val Gln Ala Ile Tyr Val Pro Ala Asp Asp Leu Thr Asp Pro Ala  
 385 390 395 400

Pro Ala Thr Thr Phe Ala His Leu Asp Ala Thr Thr Val Leu Ser Arg  
 405 410 415

Ala Ile Ala Glu Leu Gly Ile Tyr Pro Ala Val Asp Pro Leu Asp Ser  
 420 425 430

Thr Ser Arg Ile Met Asp Pro Asn Ile Val Gly Ser Glu His Tyr Asp  
 435 440 445

Val Ala Arg Gly Val Gln Lys Ile Leu Gln Asp Tyr Lys Ser Leu Gln  
 450 455 460

Asp Ile Ile Ala Ile Leu Gly Met Asp Glu Leu Ser Glu Glu Asp Lys  
 465 470 475 480

Leu Thr Val Ser Arg Ala Arg Lys Ile Gln Arg Phe Leu Ser Gln Pro  
 485 490 495

Phe Gln Val Ala Glu Val Phe Thr Gly His Met Gly Lys Leu Val Pro  
 500 505 510

Leu Lys Glu Thr Ile Lys Gly Phe Gln Gln Ile Leu Ala Gly Glu Tyr  
 515 520 525

Asp His Leu Pro Glu Gln Ala Phe Tyr Met Val Gly Pro Ile Glu Glu  
 530 535 540

1375

Ala Val Ala Lys Ala Asp Lys Leu Ala Glu Glu His Ser Ser  
545 550 555

&lt;210&gt; 1330

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1330

Thr Thr Pro Leu Ser Gln Ile Val Ala Arg Gly Leu Ile Ala Arg Gly  
1 5 10 15

Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln Arg Ala  
20 25 30

Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu Asp Met  
35 40 45

Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile Arg Val  
50 55 60

Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln Ala Thr  
65 70 75 80

Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile Pro Leu  
85 90 95

Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu Phe Leu  
100 105 110

Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro Val Glu  
115 120 125

Gly Gly Phe Trp Ala Cys  
130

&lt;210&gt; 1331

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1376

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1331

Ile Arg His Glu Pro Ser Arg Cys Arg Ser Arg Thr Ala Ala Val Cys  
 1 5 10 15

Ser Pro Pro Pro Cys Pro Pro Trp Arg Arg Pro Arg Gly Pro Trp Thr  
 20 25 30

Ala Lys Ser Pro Pro Trp Pro Pro Ala Arg Pro Arg Trp Gln Trp Thr  
 35 40 45

Arg Ala Leu Asn Ser Thr Ala Ala Pro Pro Arg Ser Pro Pro Ala Pro  
 50 55 60

Cys Pro Cys Arg Pro Asn Ser Ala Arg Arg Lys Arg Arg Pro Pro Ala  
 65 70 75 80

Asn Cys Arg Ala Ser Ser Gly Trp Leu Ala Ala Trp Lys Pro Ser Arg  
 85 90 95

Thr Gly Pro Ala Ala Arg Pro Arg Arg Pro Val Pro Asp Thr Ser Phe  
 100 105 110

His Ser Ser Pro Val Gln Ala Ala Val His Phe Val Gly Tyr Lys Ile  
 115 120 125

Asn His Gly Pro Ala Met Xaa Leu Xaa Phe Leu Leu Gln Leu Arg Leu  
 130 135 140

Gly Arg Gly Pro Gly Leu Pro Arg Glu Asn Val Leu Glu Thr Ala Pro  
 145 150 155 160

Val Phe Leu Ala Trp Phe Ile Cys Pro Gly Ser Gly Ser Asp Ser Gly  
 165 170 175

Gly Ser Glu Thr Ser Val Ala Leu Ser Tyr Trp Gly  
 180 185

&lt;210&gt; 1332

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)



1377

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1332

Asp Asp Arg Arg Xaa Asp Ala Glu Ala Asp Lys Met Ala Ala Ala Ala  
 1 5 10 15

Val Gln Gly Gly Arg Ser Gly Gly Ser Gly Gly Cys Ser Gly Ala Gly  
 20 25 30

Gly Ala Ser Asn Cys Gly Thr Gly Ser Gly Arg Ser Gly Leu Leu Asp  
 35 40 45

Lys Trp Lys Ile Asp Asp Lys Pro Val Lys Ile Asp Lys Trp Asp Gly  
 50 55 60

Ser Ala Val Lys Asn Ser Leu Asp Asp Ser Ala Lys Lys Val Leu Leu  
 65 70 75 80

Glu Lys Tyr Lys Tyr Val Glu Asn Phe Gly Leu Ile Asp Gly Arg Leu  
 85 90 95

Thr Ile Cys Thr Ile Ser Cys Phe Phe Ala Ile Val Ala Leu Ile Trp  
 100 105 110

Asp Tyr Met His Pro Phe Pro Glu Ser Lys Pro Val Leu Ala Leu Cys  
 115 120 125

Val Ile Ser Tyr Phe Val Met Met Gly Ile Leu Thr Ile Tyr Thr Ser  
 130 135 140

Tyr Lys Glu Lys Ser Ile Phe Leu Val Ala His Arg Lys Asp Pro Thr  
 145 150 155 160

Gly Met Asp Pro Asp Asp Ile Trp Gln Leu Ser Ser Ser Leu Lys Arg  
 165 170 175

Phe Asp Asp Lys Tyr Thr Leu Lys Leu Thr Phe Ile Ser Gly Arg Thr  
 180 185 190

Lys Gln Gln Arg Glu Ala Glu Phe Thr Lys Ser Ile Ala Lys Phe Phe  
 195 200 205

Asp His Ser Gly Thr Leu Val Met Asp Ala Tyr Glu Pro Glu Ile Ser  
 210 215 220

Arg Leu His Asp Ser Leu Ala Ile Glu Arg Lys Ile Lys  
 225 230 235

&lt;210&gt; 1333

1378

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1333

Thr Thr Ala Asn Pro Leu Lys Thr Arg Gly Leu Ala Leu Val Ala Gln  
 1 5 10 15

Pro Lys Val Ala Leu Gln Ile Phe Glu Arg Ala Thr Ala Thr Phe Leu  
 20 25 30

Pro Ser Gln Leu Ser Leu Asp Phe Ser Glu Ser Gly Tyr Cys Tyr Pro  
 35 40 45

Asn Val Cys Leu Tyr Glu Cys Ile  
 50 55

&lt;210&gt; 1334

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1334

Ser His Pro Ala Cys Ala Lys Val Glu Tyr Ala Tyr Ser Asp Asn Ser  
 1 5 10 15

Leu Asp Pro Asp Asp Glu Asp Ser Asp Tyr His Gln Glu Ala Tyr Lys  
 20 25 30

Glu Ser Tyr Lys Asp Arg Arg Arg Arg Ala His Thr Gln Ala Glu Gln  
 35 40 45

Lys Arg Arg Asp Ala Ile Lys Arg Gly Tyr Asp Asp Leu Gln Thr Ile  
 50 55 60

Val Pro Thr Cys Gln Gln Gln Asp Phe Ser Ile Gly Ser Gln Lys Leu  
 65 70 75 80

Ser Lys Ala Ile Val Leu Gln Lys Thr Ile Asp Tyr Ile Gln Phe Leu  
 85 90 95

His Lys Glu Lys Lys Lys Gln Glu Glu Glu Val Ser Thr Leu Arg Lys  
 100 105 110

Asp Val Thr Ala Leu Lys Ile Met Lys Val Asn Tyr Glu Gln Ile Val  
 115 120 125

Lys Ala His Gln Asp Asn Pro His Glu Gly Glu Asp Gln Val Ser Asp  
 130 135 140

1379

Gln Val Lys Phe Asn Val Phe Gln Gly Ile Met Asp Ser Leu Phe Gln  
145 150 155 160

Ser Phe Asn Ala Ser Ile Ser Val Ala Ser Phe Gln Glu Leu Ser Ala  
165 170 175

Cys Val Phe Ser Trp Ile Glu Glu His Cys Lys Pro Gln Thr Leu Arg  
180 185 190

Glu Ile Val Ile Gly Val Leu His Gln Leu Lys Asn Gln Leu Tyr  
195 200 205

&lt;210&gt; 1335

&lt;211&gt; 1005

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1335

Arg Val Leu Gln Tyr Val Val Pro Glu Val Lys Asp Leu Tyr Asn Trp  
1 5 10 15

Leu Glu Val Glu Phe Asn Pro Leu Lys Leu Cys Glu Arg Val Thr Lys  
20 25 30

Val Leu Asn Trp Val Arg Glu Gln Pro Glu Lys Glu Pro Glu Leu Gln  
35 40 45

Gln Tyr Val Pro Gln Leu Gln Asn Asn Thr Ile Leu Arg Leu Leu Gln  
50 55 60

Gln Val Ser Gln Ile Tyr Gln Ser Ile Glu Phe Ser Arg Leu Thr Ser  
65 70 75 80

Leu Val Pro Phe Val Asp Ala Phe Gln Leu Glu Arg Ala Ile Val Asp  
85 90 95

Ala Ala Arg His Cys Asp Leu Gln Val Arg Ile Asp His Thr Ser Arg  
100 105 110

Thr Leu Ser Phe Gly Ser Asp Leu Asn Tyr Ala Thr Arg Glu Asp Ala  
115 120 125

Pro Ile Gly Pro His Leu Gln Ser Met Pro Ser Glu Gln Ile Arg Asn  
130 135 140

Gln Leu Thr Ala Met Ser Ser Val Leu Ala Lys Ala Leu Glu Val Ile  
145 150 155 160

1380

Lys	Pro	Ala	His	Ile	Leu	Gln	Glu	Lys	Glu	Glu	Gln	His	Gln	Leu	Ala	165	170	175	
Val	Thr	Ala	Tyr	Leu	Lys	Asn	Ser	Arg	Lys	Glu	His	Gln	Arg	Ile	Leu	180	185	190	
Ala	Arg	Arg	Gln	Thr	Ile	Glu	Glu	Arg	Lys	Glu	Arg	Leu	Glu	Ser	Leu	195	200	205	
Asn	Ile	Gln	Arg	Glu	Lys	Glu	Glu	Leu	Glu	Gln	Arg	Glu	Ala	Glu	Leu	210	215	220	
Gln	Lys	Val	Arg	Lys	Ala	Glu	Glu	Glu	Arg	Leu	Arg	Gln	Glu	Ala	Lys	225	230	235	240
Glu	Arg	Glu	Lys	Glu	Arg	Ile	Leu	Gln	Glu	His	Glu	Gln	Ile	Lys	Lys	245	250	255	
Lys	Thr	Val	Arg	Glu	Arg	Leu	Glu	Gln	Ile	Lys	Lys	Thr	Glu	Leu	Gly	260	265	270	
Ala	Lys	Ala	Phe	Lys	Asp	Ile	Asp	Ile	Glu	Asp	Leu	Glu	Glu	Leu	Asp	275	280	285	
Pro	Asp	Phe	Ile	Met	Ala	Lys	Gln	Val	Glu	Gln	Leu	Glu	Lys	Glu	Lys	290	295	300	
Lys	Glu	Leu	Gln	Glu	Arg	Leu	Lys	Asn	Gln	Glu	Lys	Lys	Ile	Asp	Tyr	305	310	315	320
Phe	Glu	Arg	Ala	Lys	Arg	Leu	Glu	Glu	Ile	Pro	Leu	Ile	Lys	Ser	Ala	325	330	335	
Tyr	Glu	Glu	Gln	Arg	Ile	Lys	Asp	Met	Asp	Leu	Trp	Glu	Gln	Gln	Glu	340	345	350	
Glu	Glu	Arg	Ile	Thr	Thr	Met	Gln	Leu	Glu	Arg	Glu	Lys	Ala	Leu	Glu	355	360	365	
His	Lys	Asn	Arg	Met	Ser	Arg	Met	Leu	Glu	Asp	Arg	Asp	Leu	Phe	Val	370	375	380	
Met	Arg	Leu	Lys	Ala	Ala	Arg	Gln	Ser	Val	Tyr	Glu	Glu	Lys	Leu	Lys	385	390	395	400
Gln	Phe	Glu	Glu	Arg	Leu	Ala	Glu	Glu	Arg	His	Asn	Arg	Leu	Glu	Glu	405	410	415	
Arg	Lys	Arg	Gln	Arg	Lys	Glu	Glu	Arg	Arg	Ile	Thr	Tyr	Tyr	Arg	Glu	420	425	430	

1381

Lys Glu Glu Glu Glu Gln Arg Arg Ala Glu Glu Gln Met Leu Lys Glu  
 435 440 445

Arg Glu Glu Arg Glu Arg Ala Glu Arg Ala Lys Arg Glu Glu Glu Leu  
 450 455 460

Arg Glu Tyr Gln Glu Arg Val Lys Lys Leu Glu Glu Val Glu Arg Lys  
 465 470 475 480

Lys Arg Gln Arg Glu Leu Glu Ile Glu Glu Arg Glu Arg Arg Arg Glu  
 485 490 495

Glu Glu Arg Arg Leu Gly Asp Ser Ser Leu Ser Arg Lys Asp Ser Arg  
 500 505 510

Trp Gly Asp Arg Asp Ser Glu Gly Thr Trp Arg Lys Gly Pro Glu Ala  
 515 520 525

Asp Ser Glu Trp Arg Arg Gly Pro Pro Glu Lys Glu Trp Arg Arg Gly  
 530 535 540

Glu Gly Arg Asp Glu Asp Arg Ser His Arg Arg Asp Glu Glu Arg Pro  
 545 550 555 560

Arg Arg Leu Gly Asp Asp Glu Asp Arg Glu Pro Ser Leu Arg Pro Asp  
 565 570 575

Asp Asp Arg Val Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg  
 580 585 590

Arg Gly Pro Glu Glu Asp Arg Phe Ser Arg Arg Gly Ala Asp Asp Asp  
 595 600 605

Arg Pro Ser Trp Arg Asn Thr Asp Asp Asp Arg Pro Pro Arg Arg Ile  
 610 615 620

Ala Asp Glu Asp Arg Gly Asn Trp Arg His Ala Asp Asp Asp Arg Pro  
 625 630 635 640

Pro Arg Arg Gly Leu Asp Glu Asp Arg Gly Ser Trp Arg Thr Ala Asp  
 645 650 655

Glu Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg  
 660 665 670

Arg Gly Gly Ala Asp Asp Glu Arg Ser Ser Trp Arg Asn Ala Asp Asp  
 675 680 685

Asp Arg Gly Pro Arg Arg Gly Leu Asp Asp Asp Arg Gly Pro Arg Arg  
 690 695 700

1382

Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg  
 705 710 715 720

Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg Arg Gly Leu  
 725 730 735

Asp Asp Asp Arg Gly Pro Trp Arg Asn Ala Asp Asp Asp Arg Ile Pro  
 740 745 750

Arg Arg Gly Ala Glu Asp Asp Arg Gly Pro Trp Arg Asn Met Asp Asp  
 755 760 765

Asp Arg Leu Ser Arg Arg Ala Asp Asp Asp Arg Phe Pro Arg Arg Gly  
 770 775 780

Asp Asp Ser Arg Pro Gly Pro Trp Arg Pro Leu Val Lys Pro Gly Gly  
 785 790 795 800

Trp Arg Glu Lys Glu Lys Ala Arg Glu Glu Ser Trp Gly Pro Pro Arg  
 805 810 815

Glu Ser Arg Pro Ser Glu Glu Arg Glu Trp Asp Arg Glu Lys Glu Arg  
 820 825 830

Asp Arg Asp Asn Gln Asp Arg Glu Glu Asn Asp Lys Asp Pro Glu Arg  
 835 840 845

Glu Arg Asp Arg Glu Arg Asp Val Asp Arg Glu Asp Arg Phe Arg Arg  
 850 855 860

Pro Arg Asp Glu Gly Gly Trp Arg Arg Gly Pro Ala Glu Glu Ser Ser  
 865 870 875 880

Ser Trp Arg Asp Ser Ser Arg Arg Asp Asp Arg Asp Arg Asp Asp Arg  
 885 890 895

Arg Arg Glu Arg Asp Asp Arg Arg Asp Leu Arg Glu Arg Arg Asp Leu  
 900 905 910

Arg Asp Asp Arg Asp Arg Arg Gly Pro Pro Leu Arg Ser Glu Arg Glu  
 915 920 925

Glu Val Ser Ser Trp Arg Arg Ala Asp Asp Arg Lys Asp Asp Arg Val  
 930 935 940

Glu Glu Arg Asp Pro Pro Arg Arg Val Pro Pro Pro Ala Leu Ser Arg  
 945 950 955 960

Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Glu Gly Glu Lys Glu Lys  
 965 970 975

1383

Ala Ser Trp Arg Ala Glu Lys Asp Arg Glu Ser Leu Arg Arg Thr Lys  
980 985 990

Asn Glu Thr Asp Glu Asp Gly Trp Thr Thr Val Arg Arg  
995 1000 1005

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<210> 1336
<211> 231
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (73)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1336  
Ala Gly Ile His Pro Met Asn Ser Ile Ser Ser Leu Asp Arg Thr Arg  
1 5 10 15

1384

Met Met Thr Pro Phe Met Gly Ile Ser Pro Leu Pro Gly Gly Glu Arg  
20 25 30

Phe Pro Tyr Pro Ser Phe His Trp Asp Pro Ile Arg Asp Pro Leu Arg  
35 40 45

Asp Pro Tyr Xaa Glu Leu Asp Ile His Arg Arg Asp Pro Leu Gly Xaa  
50 55 60

Asp Phe Leu Leu Arg Asn Asp Pro Xaa His Arg Leu Ser Thr Xaa Arg  
65 70 75 80

Leu Xaa Xaa Ala Asp Arg Ser Phe Arg Asp Arg Glu Pro His Asp Tyr  
85 90 95

Ser His His His His His His His His Pro Leu Ser Val Asp Pro Arg  
100 105 110

Arg Glu His Glu Arg Xaa Gly His Leu Asp Glu Arg Glu Arg Leu His  
115 120 125

Met Leu Arg Glu Asp Tyr Glu His Thr Arg Leu His Ser Val His Pro  
130 135 140

Ala Ser Leu Asp Gly His Leu Pro His Pro Ser Leu Ile Thr Pro Gly  
145 150 155 160

Leu Pro Ser Met His Tyr Pro Arg Ile Ser Pro Thr Ala Gly Asn Gln  
165 170 175

Asn Gly Leu Leu Asn Lys Thr Pro Pro Thr Ala Ala Leu Ser Ala Pro  
180 185 190

Pro Pro Leu Ile Ser Thr Leu Gly Gly Arg Pro Val Ser Pro Arg Arg  
195 200 205

Thr Thr Pro Leu Ser Ala Glu Ile Arg Glu Arg Pro Pro Ser His Thr  
210 215 220

Leu Lys Asp Ile Glu Ala Arg  
225 230

&lt;210&gt; 1337

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1337



1385

Gly Val Glu Gly Leu Lys Asp Ala Gln Met Arg Asp Leu Leu Ser Pro  
 1 5 10 15  
 Pro Thr Asp Asn Arg Pro Gly Gln Met Asp Asn Arg Ser Lys Leu Arg  
 20 25 30  
 Asn Ile Val Glu Leu Arg Leu Ala Gly Leu Asp Ile Thr Asp Ala Ser  
 35 40 45  
 Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu Ser Lys Leu His Leu  
 50 55 60  
 Ser Tyr Cys Asn His Val Thr Asp Gln Ser Ile Asn Leu Leu Thr Ala  
 65 70 75 80  
 Val Gly Thr Thr Thr Arg Asp Ser Leu Thr Glu Ile Asn Leu Ser Asp  
 85 90 95  
 Cys Asn Lys Val Thr Asp Gln Cys Leu Ser Phe Phe Lys Arg Cys Gly  
 100 105 110  
 Asn Ile Cys His Ile Asp Leu Arg Tyr Cys Lys Gln Val Thr Lys Glu  
 115 120 125  
 Gly Cys Glu Gln Phe Ile Ala Glu Met Ser Val Ser Val Gln Phe Gly  
 130 135 140  
 Gln Val Glu Glu Lys Leu Leu Gln Lys Leu Ser  
 145 150 155

&lt;210&gt; 1338

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1338

Asn Asn Ser Gly Val Met Pro Glu Met Pro Glu Asp Met Glu Gln Glu  
 1 5 10 15  
 Glu Val Asn Ile Pro Asn Arg Arg Val Leu Val Thr Gly Ala Thr Gly  
 20 25 30  
 Leu Leu Gly Arg Ala Val His Lys Glu Phe Gln Gln Asn Asn Trp His  
 35 40 45  
 Ala Val Gly Cys Gly Phe Arg Arg Ala Arg Pro Lys Phe Glu Gln Val  
 50 55 60  
 Asn Leu Leu Asp Ser Asn Ala Val His His Ile Ile His Asp Phe Gln

65				70				75				80			
Pro	His	Val	Ile	Val	His	Cys	Ala	Ala	Glu	Arg	Arg	Pro	Asp	Val	Val
85								90				95			
Glu	Asn	Gln	Pro	Asp	Ala	Ala	Ser	Gln	Leu	Asn	Val	Asp	Ala	Ser	Gly
100								105				110			
Asn	Leu	Ala	Lys	Glu	Ala	Ala	Ala	Val	Gly	Ala	Phe	Leu	Ile	Tyr	Ile
115								120				125			
Ser	Ser	Asp	Tyr	Val	Phe	Asp	Gly	Thr	Asn	Pro	Pro	Tyr	Arg	Glu	Glu
130								135				140			
Asp	Ile	Pro	Ala	Pro	Leu	Asn	Leu	Tyr	Gly	Lys	Thr	Lys	Leu	Asp	Gly
145								150				155			
Glu	Lys	Ala	Val	Leu	Glu	Asn	Asn	Leu	Gly	Ala	Ala	Val	Leu	Arg	Ile
				165								170			
Pro	Ile	Leu	Tyr	Gly	Glu	Val	Glu	Lys	Leu	Glu	Glu	Ser	Ala	Val	Thr
				180								185			
Val	Met	Phe	Asp	Lys	Val	Gln	Phe	Ser	Asn	Lys	Ser	Ala	Asn	Met	Asp
195								200				205			
His	Trp	Gln	Gln	Arg	Phe	Pro	Thr	His	Val	Lys	Asp	Val	Ala	Thr	Val
210								215				220			
Cys	Arg	Gln	Leu	Ala	Glu	Lys	Arg	Met	Leu	Asp	Pro	Ser	Ile	Lys	Gly
225								230				235			
Thr	Phe	His	Trp	Ser	Gly	Asn	Glu	Gln	Met	Thr	Lys	Tyr	Glu	Met	Ala
				245								250			
Cys	Ala	Ile	Ala	Asp	Ala	Phe	Asn	Leu	Pro	Ser	Ser	His	Leu	Arg	Pro
260								265				270			
Ile	Thr	Asp	Ser	Pro	Val	Leu	Gly	Ala	Gln	Arg	Pro	Arg	Asn	Ala	Gln
275								280				285			
Leu	Asp	Cys	Ser	Lys	Leu	Glu	Thr	Leu	Gly	Ile	Gly	Gln	Arg	Thr	Pro
290								295				300			
Phe	Arg	Ile	Gly	Ile	Lys	Glu	Ser	Leu	Trp	Pro	Phe	Leu	Ile	Asp	Lys
305								310				315			
Arg	Trp	Arg	Gln	Thr	Val	Phe	His								
325															

1387

&lt;210&gt; 1339

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1339

Leu Xaa His Pro Phe Ala Val Thr Ser Tyr Gly Lys Asn Leu Tyr Phe  
 1 5 10 15

Thr Asp Trp Lys Met Asn Ser Val Val Ala Leu Asp Leu Ala Ile Ser  
 20 25 30

Lys Glu Thr Asp Ala Phe Gln Pro His Lys Gln Thr Arg Leu Tyr Gly  
 35 40 45

Ile Thr Thr Ala Leu Ser Gln Cys Pro Gln Ala Ile Thr Thr Ala Gln  
 50 55 60

&lt;210&gt; 1340

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1340

Arg Lys Met Ala Val Glu Ser Arg Val Thr Gln Glu Glu Ile Lys Lys  
 1 5 10 15

Glu Pro Glu Lys Pro Ile Asp Arg Glu Lys Thr Cys Pro Leu Leu Leu  
 20 25 30

Arg Val Phe Thr Thr Asn Asn Gly Arg His His Arg Met Asp Glu Phe  
 35 40 45

Ser Arg Gly Asn Val Pro Ser Ser Glu Leu Gln Ile Tyr Thr Trp Met  
 50 55 60

Asp Ala Thr Leu Lys Glu Leu Thr Ser Leu Val Lys Glu Val Tyr Pro  
 65 70 75 80

Glu Ala Arg Lys Lys Gly Thr His Phe Asn Phe Ala Ile Val Phe Thr

1388

	85		90		95
Asp Val Lys Arg Pro Gly Tyr Arg Val Lys Glu Ile Gly Ser Thr Met					
	100		105		110
Ser Gly Arg Lys Gly Thr Asp Asp Ser Met Thr Leu Gln Ser Gln Lys					
	115		120		125
Phe Gln Ile Gly Asp Tyr Leu Asp Ile Ala Ile Thr Pro Pro Asn Arg					
	130		135		140
Ala Pro Pro Pro Ser Gly Arg Met Arg Pro Tyr					
	145		150		155

<210> 1341  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<400> 1341

Ala Gln Leu Pro Ser Ser Ser Phe Leu Arg His Arg Gly Val Phe Leu					
1		5		10	15
Thr Pro Leu Leu Ala Met Ser Ser His Lys Thr Phe Arg Ile Lys Arg					
	20		25		30
Phe Leu Ala Lys Lys Gln Lys Gln Asn Arg Pro Ile Pro Gln Trp Ile					
	35		40		45
Arg Met Lys Thr Gly Asn Lys Ile Arg Tyr Asn Ser Lys Arg Arg His					
	50		55		60
Trp Arg Arg Thr Lys Leu Gly Leu					
	65		70		

<210> 1342  
 <211> 270  
 <212> PRT  
 <213> Homo sapiens

<400> 1342

Leu Lys Val Ala Gln Thr Asp Gly Val Asn Val Asp Met His Leu Lys					
1		5		10	15
Gln Ile Glu Ile Lys Lys Phe Lys Tyr Gly Ile Glu Glu His Gly Lys					
	20		25		30

1389

Val Lys Met Arg Gly Gly Leu Leu Arg Thr Tyr Ile Ile Ser Ile Leu  
           35                          40                          45  
 Phe Lys Ser Ile Phe Glu Val Ala Phe Leu Leu Ile Gln Trp Tyr Ile  
           50                          55                          60  
 Tyr Gly Phe Ser Leu Ser Ala Val Tyr Thr Cys Lys Arg Asp Pro Cys  
           65                          70                          75                          80  
 Pro His Gln Val Asp Cys Phe Leu Ser Arg Pro Thr Glu Lys Thr Ile  
                           85                          90                          95  
 Phe Ile Ile Phe Met Leu Val Val Ser Leu Val Ser Leu Ala Leu Asn  
                           100                          105                          110  
 Ile Ile Glu Leu Phe Tyr Val Phe Phe Lys Gly Val Lys Asp Arg Val  
           115                          120                          125  
 Lys Gly Lys Ser Asp Pro Tyr His Ala Thr Ser Gly Ala Leu Ser Pro  
           130                          135                          140  
 Ala Lys Asp Cys Gly Ser Gln Lys Tyr Ala Tyr Phe Asn Gly Cys Ser  
           145                          150                          155                          160  
 Ser Pro Thr Ala Pro Leu Ser Pro Met Ser Pro Pro Gly Tyr Lys Leu  
                           165                          170                          175  
 Val Thr Gly Asp Arg Asn Asn Ser Ser Cys Arg Asn Tyr Asn Lys Gln  
           180                          185                          190  
 Ala Ser Glu Gln Asn Trp Ala Asn Tyr Ser Ala Glu Gln Asn Arg Met  
           195                          200                          205  
 Gly Gln Ala Gly Ser Thr Ile Ser Asn Ser His Ala Gln Pro Phe Asp  
           210                          215                          220  
 Phe Pro Asp Asp Asn Gln Asn Ser Lys Lys Leu Ala Ala Gly His Glu  
           225                          230                          235                          240  
 Leu Gln Pro Leu Ala Ile Val Asp Gln Arg Pro Ser Ser Arg Ala Ser  
                           245                          250                          255  
 Ser Arg Ala Ser Ser Arg Pro Arg Pro Asp Asp Leu Glu Ile  
           260                          265                          270

&lt;210&gt; 1343

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1390

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1343

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser  
1 5 10 15

Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg  
20 25 30

Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln  
35 40 45

Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser  
50 55 60

Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu  
65 70 75 80

Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu  
85 90

&lt;210&gt; 1344

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1344

Tyr Ser Thr Arg Ala Leu Trp Lys Pro Asn His Val His Val Cys Val  
1 5 10 15

1391

Cys Val Cys Ala Ser Phe Glu Pro Pro Ser Thr Ala Ala Ser Ser His  
                   20                  25                  30  
 Asp Thr Lys Leu Leu Ile Ser Thr Phe Leu Trp Val Ala Gln Gly Leu  
           35                  40                  45  
 Ile Ala Ser His Ser Ile Thr Arg Ile Glu Ala Arg His Gly Gly Ala  
       50                  55                  60  
 Cys Leu Val Val Pro Ala Lys Leu Gly Arg Leu Glu Gly Arg Glu Gly  
   65                  70                  75                  80  
 Ser Leu Trp Ser Pro Gly Arg Leu Glu Gly Trp Gln Trp Ser His Gly  
                   85                  90                  95  
 Ser Gly Gly His Trp His Phe Gln Pro Gly Gly Gly Arg Val Glu Thr  
           100                  105                  110  
 Phe Val Leu Gln Lys Xaa Lys Lys Lys Xaa Xaa Gly Gly  
       115                  120                  125

&lt;210&gt; 1345

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1345

Pro Arg Val Arg Arg Leu Arg Glu Asp Asp Arg Arg Gly Phe Leu Ser  
   1                  5                  10                  15  
 Phe Arg Ala Asp Ser Ala His Ala Ser Met Val Asn Val Pro Lys Thr  
           20                  25                  30  
 Arg Arg Thr Phe Cys Lys Lys Cys Gly Lys His Gln Pro His Lys Val  
           35                  40                  45  
 Thr Gln Tyr Lys Lys Gly Lys Asp Ser Leu Tyr Ala Gln Gly Lys Arg  
       50                  55                  60  
 Arg Tyr Asp Arg Lys Gln Ser Gly Tyr Gly Gly Gln Thr Lys Pro Ile  
   65                  70                  75                  80  
 Phe Arg Lys Lys Ala Lys Thr Thr Lys Lys Ile Val Leu Arg Leu Glu  
           85                  90                  95  
 Cys Val Glu Pro Asn Cys Arg Ser Lys Arg Met Leu Ala Ile Lys Arg  
       100                  105                  110  
 Cys Lys His Phe Glu Leu Gly Gly Asp Lys Lys Arg Lys Gly Gln Val

1392

115

120

125

Ile Gln Phe  
130

&lt;210&gt; 1346

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1346

Asn Lys Arg Asn Cys Lys Phe Pro Leu Leu Lys Ile Thr Lys Ile Thr  
1 5 10 15

Glu Thr Lys Glu Glu Ile Arg Ile Trp Gly Ile Val Leu Asn Asn Leu  
20 25 30

Val Val Lys Lys Asn Asn Cys Ala Cys Leu Asp Leu Asn Lys Pro Pro  
35 40 45

Ser Lys Cys Glu Gly Ser Ser Asn Phe Ser Lys His Met Lys Val Leu  
50 55 60

Ile His Phe Asp Lys Gly Pro Leu Lys Lys Ser  
65 70 75

&lt;210&gt; 1347

&lt;211&gt; 413

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1347

Gly Val Ala Arg Ala Gln Pro Val Pro Ala Val Leu Ser Trp Leu Leu  
1 5 10 15

Ala Leu Leu Arg Cys Ala Ala Thr Met Leu Ser Leu Arg Val Pro Leu  
20 25 30

Ala Pro Ile Thr Asp Pro Gln Gln Leu Gln Leu Ser Pro Leu Lys Gly  
35 40 45

Leu Ser Leu Val Asp Lys Glu Asn Thr Pro Pro Ala Leu Ser Gly Thr  
50 55 60

Arg Val Leu Ala Ser Lys Thr Ala Arg Arg Ile Phe Gln Glu Pro Thr  
65 70 75 80



1393

Glu	Pro	Lys	Thr	Lys	Ala	Ala	Ala	Pro	Gly	Val	Glu	Asp	Glu	Pro	Leu	85	90	95	
Leu	Arg	Glu	Asn	Pro	Arg	Arg	Phe	Val	Ile	Phe	Pro	Ile	Glu	Tyr	His	100	105	110	
Asp	Ile	Trp	Gln	Met	Tyr	Lys	Lys	Ala	Glu	Ala	Ser	Phe	Trp	Thr	Ala	115	120	125	
Glu	Glu	Val	Asp	Leu	Ser	Lys	Asp	Ile	Gln	His	Trp	Glu	Ser	Leu	Lys	130	135	140	
Pro	Glu	Glu	Arg	Tyr	Phe	Ile	Ser	His	Val	Leu	Ala	Phe	Phe	Ala	Ala	145	150	155	160
Ser	Asp	Gly	Ile	Val	Asn	Glu	Asn	Leu	Val	Glu	Arg	Phe	Ser	Gln	Glu	165	170	175	
Val	Gln	Ile	Thr	Glu	Ala	Arg	Cys	Phe	Tyr	Gly	Phe	Gln	Ile	Ala	Met	180	185	190	
Glu	Asn	Ile	His	Ser	Glu	Met	Tyr	Ser	Leu	Leu	Ile	Asp	Thr	Tyr	Ile	195	200	205	
Lys	Asp	Pro	Lys	Glu	Arg	Glu	Phe	Leu	Phe	Asn	Ala	Ile	Glu	Thr	Met	210	215	220	
Pro	Cys	Val	Lys	Lys	Lys	Ala	Asp	Trp	Ala	Leu	Arg	Trp	Ile	Gly	Asp	225	230	235	240
Lys	Glu	Ala	Thr	Tyr	Gly	Glu	Arg	Val	Val	Ala	Phe	Ala	Ala	Val	Glu	245	250	255	
Gly	Ile	Phe	Phe	Ser	Gly	Ser	Phe	Ala	Ser	Ile	Phe	Trp	Leu	Lys	Lys	260	265	270	
Arg	Gly	Leu	Met	Pro	Gly	Leu	Thr	Phe	Ser	Asn	Glu	Leu	Ile	Ser	Arg	275	280	285	
Asp	Glu	Gly	Leu	His	Cys	Asp	Phe	Ala	Cys	Leu	Met	Phe	Lys	His	Leu	290	295	300	
Val	His	Lys	Pro	Ser	Glu	Glu	Arg	Val	Arg	Glu	Ile	Ile	Ile	Asn	Ala	305	310	315	320
Val	Arg	Ile	Glu	Gln	Glu	Phe	Leu	Thr	Glu	Ala	Leu	Pro	Val	Lys	Leu	325	330	335	
Ile	Gly	Met	Asn	Cys	Thr	Leu	Met	Lys	Gln	Tyr	Ile	Glu	Phe	Val	Ala	340	345	350	

1394

Asp Arg Leu Met Leu Glu Leu Gly Phe Ser Lys Val Phe Arg Val Glu  
 355 360 365

Asn Pro Phe Asp Phe Met Glu Asn Ile Ser Leu Glu Gly Lys Thr Asn  
 370 375 380

Phe Phe Glu Lys Arg Val Gly Glu Tyr Gln Arg Met Gly Val Met Ser  
 385 390 395 400

Ser Pro Thr Glu Asn Ser Phe Thr Leu Asp Ala Asp Phe  
 405 410

&lt;210&gt; 1348

&lt;211&gt; 243

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1348

Thr Gly Asn Lys Met Gln Asp Pro Asn Ala Asp Thr Glu Trp Asn Asp  
 1 5 10 15

Ile Leu Arg Lys Lys Gly Ile Leu Pro Pro Lys Glu Ser Leu Lys Glu  
 20 25 30

Leu Glu Glu Glu Ala Glu Glu Glu Gln Arg Ile Leu Gln Gln Ser Val  
 35 40 45

Val Lys Thr Tyr Glu Asp Met Thr Leu Glu Glu Leu Glu Asp His Glu  
 50 55 60

Asp Glu Phe Asn Glu Glu Asp Glu Arg Ala Ile Glu Met Tyr Arg Arg  
 65 70 75 80

Arg Arg Leu Ala Glu Trp Lys Ala Thr Lys Leu Lys Asn Lys Phe Gly  
 85 90 95

Glu Val Leu Glu Ile Ser Gly Lys Asp Tyr Val Gln Glu Val Thr Lys  
 100 105 110

Ala Gly Glu Gly Leu Trp Val Ile Leu His Leu Tyr Lys Gln Gly Ile  
 115 120 125

Pro Leu Cys Ala Leu Ile Asn Gln His Leu Ser Gly Leu Ala Arg Lys  
 130 135 140

Phe Pro Asp Val Lys Phe Ile Lys Ala Ile Ser Thr Thr Cys Ile Pro  
 145 150 155 160

Asn Tyr Pro Asp Arg Asn Leu Pro Thr Ile Phe Val Tyr Leu Glu Gly

1395

165                      170                      175  
 Asp Ile Lys Ala Gln Phe Ile Gly Pro Leu Val Phe Gly Gly Met Asn  
                          180                      185                      190  
 Leu Thr Arg Asp Glu Leu Glu Trp Lys Leu Ser Glu Ser Gly Ala Ile  
                          195                      200                      205  
 Met Thr Asp Leu Glu Glu Asn Pro Lys Lys Pro Ile Glu Asp Val Leu  
                          210                      215                      220  
 Leu Ser Ser Val Arg Arg Ser Val Leu Met Lys Arg Asp Ser Asp Ser  
                          225                      230                      235                      240  
 Glu Gly Asp

<210> 1349  
 <211> 326  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (137)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (142)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1349  
 Arg Met Ala Thr Pro Leu Pro Pro Pro Ser Pro Arg His Leu Arg Leu  
                          1                      5                      10                      15  
 Leu Arg Leu Leu Leu Ser Gly Leu Val Leu Gly Ala Ala Leu Arg Gly  
                          20                      25                      30  
 Ala Ala Ala Gly His Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp  
                          35                      40                      45  
 Cys Ala Leu Lys Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys  
                          50                      55                      60  
 Gly Pro Cys Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val  
                          65                      70                      75                      80  
 Pro Arg Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu

1396

85										90					95				
Glu	Asp	Glu	Ile	Asp	Phe	Leu	Ala	Gln	Glu	Leu	Ala	Arg	Lys	Glu	Ser				
			100					105					110						
Gly	His	Ser	Thr	Pro	Pro	Leu	Pro	Lys	Asp	Arg	Gln	Arg	Leu	Pro	Glu				
		115					120					125							
Pro	Ala	Thr	Leu	Gly	Phe	Ser	Ala	Xaa	Gly	Gln	Gly	Leu	Xaa	Leu	Gly				
	130						135				140								
Leu	Pro	Ser	Thr	Pro	Gly	Thr	Pro	Thr	Pro	Thr	Pro	His	Thr	Ser	Leu				
145					150				155						160				
Gly	Ser	Pro	Val	Ser	Ser	Asp	Pro	Val	His	Met	Ser	Pro	Leu	Glu	Pro				
				165					170					175					
Arg	Gly	Gly	Gln	Gly	Asp	Gly	Leu	Ala	Leu	Val	Leu	Ile	Leu	Ala	Phe				
			180					185					190						
Cys	Val	Ala	Gly	Ala	Ala	Ala	Leu	Ser	Val	Ala	Ser	Leu	Cys	Trp	Cys				
	195						200					205							
Arg	Leu	Gln	Arg	Glu	Ile	Arg	Leu	Thr	Gln	Lys	Ala	Asp	Tyr	Ala	Thr				
	210					215					220								
Ala	Lys	Ala	Pro	Gly	Ser	Pro	Ala	Ala	Pro	Arg	Ile	Ser	Pro	Gly	Asp				
225					230					235					240				
Gln	Arg	Leu	Ala	Gln	Ser	Ala	Glu	Met	Tyr	His	Tyr	Gln	His	Gln	Arg				
			245					250					255						
Gln	Gln	Met	Leu	Cys	Leu	Glu	Arg	His	Lys	Glu	Pro	Pro	Lys	Glu	Leu				
		260					265						270						
Asp	Thr	Ala	Ser	Ser	Asp	Glu	Glu	Asn	Glu	Asp	Gly	Asp	Phe	Thr	Val				
	275						280					285							
Tyr	Glu	Cys	Pro	Gly	Leu	Ala	Pro	Thr	Gly	Glu	Met	Glu	Val	Arg	Asn				
	290					295					300								
Pro	Leu	Phe	Asp	His	Ala	Ala	Leu	Ser	Ala	Pro	Leu	Pro	Ala	Pro	Ser				
305					310					315					320				
Ser	Pro	Pro	Ala	Leu	Pro														
				325															

&lt;210&gt; 1350

&lt;211&gt; 62

1397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1350

Val Lys Ser Asp Thr Pro Pro Cys Val Ser Lys Asn Leu Val Pro Pro  
 1 5 10 15

Leu His Thr Ser Leu Thr Leu Asn Ile Phe His Trp Ile Leu Asp Arg  
 20 25 30

Ala Lys Gly Arg Thr Gly Ala Ser Gly Gly Pro Trp Leu Phe Lys Ser  
 35 40 45

Trp Ile Ile Cys Asp Ser Asn His Lys Phe Leu Ala Asn Phe  
 50 55 60

&lt;210&gt; 1351

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (299)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1351

Glu Pro Arg Pro Gly Cys Gly Asn Lys Met Ala Gly Lys Lys Asn Val  
 1 5 10 15

Leu Ser Ser Leu Ala Val Tyr Ala Glu Asp Ser Glu Pro Glu Ser Asp  
 20 25 30

Gly Glu Ala Gly Ile Glu Ala Val Gly Ser Ala Ala Glu Glu Lys Gly  
 35 40 45

Gly Leu Val Ser Asp Ala Tyr Gly Glu Asp Asp Phe Ser Arg Leu Gly  
 50 55 60

Gly Asp Glu Asp Gly Tyr Glu Glu Glu Glu Asp Glu Asn Ser Arg Gln  
 65 70 75 80

Ser Glu Asp Asp Asp Ser Glu Thr Glu Lys Pro Glu Ala Asp Asp Pro  
 85 90 95

Lys Asp Asn Thr Glu Ala Glu Lys Arg Asp Pro Gln Glu Leu Val Ala  
 100 105 110

Ser Phe Ser Glu Arg Val Arg Asn Met Ser Pro Asp Glu Ile Lys Ile

1398

115	120	125
Pro Pro Glu Pro Pro Gly Arg Cys Ser Asn His Leu Gln Asp Lys Ile		
130	135	140
Gln Lys Leu Tyr Glu Arg Lys Ile Lys Glu Gly Met Asp Met Asn Tyr		
145	150	155
Ile Ile Gln Arg Lys Lys Glu Phe Arg Asn Pro Ser Ile Tyr Glu Lys		
165	170	175
Leu Ile Gln Phe Cys Ala Ile Asp Glu Leu Gly Thr Asn Tyr Pro Lys		
180	185	190
Asp Met Phe Asp Pro His Gly Trp Ser Glu Asp Ser Tyr Tyr Glu Ala		
195	200	205
Leu Ala Lys Ala Gln Lys Ile Glu Met Asp Lys Leu Glu Lys Ala Lys		
210	215	220
Lys Glu Arg Thr Lys Ile Glu Phe Val Thr Gly Thr Lys Lys Gly Thr		
225	230	235
Thr Thr Asn Ala Thr Ser Thr Thr Thr Thr Thr Ala Ser Thr Ala Val		
245	250	255
Ala Asp Ala Gln Lys Arg Lys Ser Lys Trp Asp Ser Ala Ile Pro Val		
260	265	270
Thr Thr Ile Ser Pro Ala His His Pro His His His Ser His Pro Ala		
275	280	285
Ser Cys Cys His Gly His His Gln Arg Gln Xaa Ser Lys Asp His Arg		
290	295	300
His Leu Cys Cys Gly Ala Pro Leu		
305	310	

&lt;210&gt; 1352

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1352

1399

Leu Leu Asp Ser Leu Lys Xaa Asp Tyr Ala Gly Lys Pro Gln Pro Pro  
 1 5 10 15  
 Ile Lys Ser Glu Arg Arg Asn Pro Pro Ser Tyr Ala Met Ala Gly Lys  
 20 25 30  
 Lys Val Leu Ile Val Tyr Ala His Gln Glu Pro Lys Ser Phe Asn Gly  
 35 40 45  
 Ser Leu Lys Asn Val Ala Val Asp Glu Leu Ser Arg Gln Gly Cys Thr  
 50 55 60  
 Val Thr Val Ser Asp Leu Tyr Ala Met Asn Phe Glu Pro Arg Ala Thr  
 65 70 75 80  
 Asp Lys Asp Ile Thr Gly Thr Leu Ser Asn Pro Glu Val Phe Asn Tyr  
 85 90 95  
 Gly Val Glu Thr His Glu Ala Tyr Lys Gln Arg Ser Leu Ala Ser Asp  
 100 105 110  
 Ile Thr Asp Glu Gln Lys Lys Val Arg Glu Ala Asp Leu Val Ile Phe  
 115 120 125  
 Gln Phe Pro Leu Tyr Trp Phe Ser Val Pro Ala Ile Leu Lys Gly Trp  
 130 135 140  
 Met Asp Arg Val Leu Cys Gln Gly Phe Ala Phe Asp Ile Pro Gly Phe  
 145 150 155 160  
 Tyr Asp Ser Gly Leu Leu Gln Gly Lys Leu Ala Leu Leu Ser Val Thr  
 165 170 175  
 Thr Gly Gly Thr Ala Glu Met Tyr Thr Lys Thr Gly Val Asn Gly Asp  
 180 185 190  
 Ser Arg Tyr Phe Leu Trp Pro Leu Gln His Gly Thr Leu His Phe Cys  
 195 200 205  
 Gly Phe Lys Val Leu Ala Pro Gln Ile Ser Phe Ala Pro Glu Ile Ala  
 210 215 220  
 Ser Glu Glu Glu Arg Lys Gly Met Val Ala Ala Trp Ser Gln Arg Leu  
 225 230 235 240  
 Gln Thr Ile Trp Lys Glu Glu Pro Ile Pro Cys Thr Ala His Trp His  
 245 250 255  
 Phe Gly Gln

1400

<210> 1353  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<400> 1353  
 Asp Leu Ala Ser Glu Glu His Phe Phe Ser Val Lys Phe Leu Tyr Leu  
 1 5 10 15  
 Lys Ile Gln Lys Tyr Phe Arg Ile Leu Leu Ile Leu Ser Pro Val Phe  
 20 25 30  
 Thr Ser Phe Trp Lys Thr Cys Ile Thr Met Ser Leu Glu Lys Gly Gln  
 35 40 45  
 Arg Lys Ala Phe His Val Lys Ile Arg Ser Leu Ala Ile Ser Asn Pro  
 50 55 60  
 Val Leu Phe Ser Leu His Phe Phe  
 65 70

<210> 1354  
 <211> 301  
 <212> PRT  
 <213> Homo sapiens

<400> 1354  
 Lys Arg Arg Arg Arg Leu Glu Gln Arg Gln Gln Pro Asp Glu Gln Arg  
 1 5 10 15  
 Arg Arg Ser Gly Ala Met Val Lys Met Ala Ala Ala Gly Gly Gly Gly  
 20 25 30  
 Gly Gly Gly Arg Tyr Tyr Gly Gly Gly Ser Glu Gly Gly Arg Ala Pro  
 35 40 45  
 Lys Arg Leu Lys Thr Asp Asn Ala Gly Asp Gln His Gly Gly Gly Gly  
 50 55 60  
 Gly Gly Gly Gly Gly Ala Gly Ala Ala Gly Gly Gly Gly Gly Glu  
 65 70 75 80  
 Asn Tyr Asp Asp Pro His Lys Thr Pro Ala Ser Pro Val Val His Ile  
 85 90 95  
 Arg Gly Leu Ile Asp Gly Val Val Glu Ala Asp Leu Val Glu Ala Leu  
 100 105 110



1401

Gln Glu Phe Gly Pro Ile Ser Tyr Val Val Val Met Pro Lys Lys Arg  
 115 120 125

Gln Ala Leu Val Glu Phe Glu Asp Val Leu Gly Ala Cys Asn Ala Val  
 130 135 140

Asn Tyr Ala Ala Asp Asn Gln Ile Tyr Ile Ala Gly His Pro Ala Phe  
 145 150 155 160

Val Asn Tyr Ser Thr Ser Gln Lys Ile Ser Arg Pro Gly Asp Ser Asp  
 165 170 175

Asp Ser Arg Ser Val Asn Ser Val Leu Leu Phe Thr Ile Leu Asn Pro  
 180 185 190

Ile Tyr Ser Ile Thr Thr Asp Val Leu Tyr Thr Ile Cys Asn Pro Cys  
 195 200 205

Gly Pro Val Gln Arg Ile Val Ile Phe Arg Lys Asn Gly Val Gln Ala  
 210 215 220

Met Val Glu Phe Asp Ser Val Gln Ser Ala Gln Arg Ala Lys Ala Ser  
 225 230 235 240

Leu Asn Gly Ala Asp Ile Tyr Ser Gly Cys Cys Thr Leu Lys Ile Glu  
 245 250 255

Tyr Ala Lys Pro Thr Arg Leu Asn Val Phe Lys Asn Asp Gln Asp Thr  
 260 265 270

Trp Asp Tyr Thr Asn Pro Asn Leu Ser Gly Gln Gly Asn Leu Asp Asp  
 275 280 285

His Phe Val Leu Asn Ile Pro Ala Leu Leu Ser Leu Asp  
 290 295 300

<210> 1355

<211> 466

<212> PRT

<213> Homo sapiens

<400> 1355

Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys  
 1 5 10 15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His  
 20 25 30

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr  
 35 40 45  
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr  
 50 55 60  
 Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu  
 65 70 75 80  
 Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg  
 85 90 95  
 Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln  
 100 105 110  
 Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Ser Ala Ala Ser Thr  
 115 120 125  
 Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro  
 130 135 140  
 Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro  
 145 150 155 160  
 Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly  
 165 170 175  
 Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg  
 180 185 190  
 Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly  
 195 200 205  
 Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met  
 210 215 220  
 Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met  
 225 230 235 240  
 Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro  
 245 250 255  
 Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro  
 260 265 270  
 Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val  
 275 280 285  
 Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu  
 290 295 300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr  
 305 310 315 320  
 Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr  
 325 330 335  
 Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile  
 340 345 350  
 His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro  
 355 360 365  
 Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn  
 370 375 380  
 Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile  
 385 390 395 400  
 Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr  
 405 410 415  
 Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro  
 420 425 430  
 Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro  
 435 440 445  
 Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly  
 450 455 460  
 Arg Tyr  
 465

&lt;210&gt; 1356

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu  
 1 5 10 15  
 Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr  
 20 25 30  
 Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly  
 35 40 45  
 Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50                      55                      60  
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu  
 65                      70                      75                      80  
 Pro Phe Leu Phe Leu  
 85

&lt;210&gt; 1357

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (526)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1357

Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu  
 1                      5                      10                      15  
 Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met  
 20                      25                      30  
 Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys  
 35                      40                      45  
 Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln  
 50                      55                      60  
 Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys  
 65                      70                      75                      80  
 Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly  
 85                      90                      95  
 Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys  
 100                      105                      110  
 Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val  
 115                      120                      125  
 Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

1405

130		135		140
Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser				
145		150		155
				160
Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val				
		165		170
				175
Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser				
		180		185
				190
Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr				
		195		200
				205
His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe				
		210		215
				220
Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu				
		225		230
				235
				240
Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala				
		245		250
				255
Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu				
		260		265
				270
Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln				
		275		280
				285
His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys				
		290		295
				300
Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile				
		305		310
				315
				320
His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe				
		325		330
				335
Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys				
		340		345
				350
Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser				
		355		360
				365
Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys				
		370		375
				380
Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys				
		385		390
				395
				400
His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys				

1406

405 410 415  
Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr  
420 425 430  
His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe  
435 440 445  
Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu  
450 455 460  
Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser  
465 470 475 480  
Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr  
485 490 495  
Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu  
500 505 510  
His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys  
515 520 525  
Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr  
530 535 540  
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe  
545 550 555 560  
Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu  
565 570 575  
Arg Leu Ser Ala  
580

&lt;210&gt; 1358

&lt;211&gt; 612

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (445)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1407

&lt;400&gt; 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly  
 1 5 10 15  
 Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser  
 20 25 30  
 Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn  
 35 40 45  
 Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro  
 50 55 60  
 Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys  
 65 70 75 80  
 Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly  
 85 90 95  
 Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu  
 100 105 110  
 Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met  
 115 120 125  
 Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser  
 130 135 140  
 Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp  
 145 150 155 160  
 Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser  
 165 170 175  
 Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr  
 180 185 190  
 Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys  
 195 200 205  
 Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp  
 210 215 220  
 Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn  
 225 230 235 240  
 Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp  
 245 250 255  
 Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1408

260	265	270
Trp Gln Ala Val Asp Ser Thr Pro Gln Glu Asn Ser Asp Gly Met Tyr		
275	280	285
Arg Cys Gly Pro Ala Ser Val Gln Ala Ile Lys His Gly His Val Cys		
290	295	300
Phe Gln Phe Asp Ala Pro Phe Val Phe Ala Glu Val Asn Ser Asp Leu		
305	310	315 320
Ile Tyr Ile Thr Ala Lys Lys Asp Gly Thr His Val Val Glu Asn Val		
325	330	335
Asp Ala Thr His Ile Gly Lys Leu Ile Val Thr Lys Gln Ile Gly Gly		
340	345	350
Asp Gly Met Met Asp Ile Thr Asp Thr Tyr Lys Phe Gln Glu Gly Gln		
355	360	365
Glu Glu Glu Arg Leu Ala Leu Glu Thr Ala Leu Met Tyr Gly Ala Lys		
370	375	380
Lys Pro Leu Asn Thr Glu Gly Val Met Lys Ser Arg Ser Asn Val Asp		
385	390	395 400
Met Asp Phe Glu Val Glu Asn Ala Val Leu Gly Lys Asp Phe Lys Leu		
405	410	415
Ser Ile Thr Phe Arg Asn Asn Ser His Asn Arg Tyr Thr Ile Thr Ala		
420	425	430
Tyr Leu Ser Ala Asn Ile Thr Phe Tyr Thr Gly Val Xaa Lys Ala Glu		
435	440	445
Phe Lys Lys Glu Thr Phe Asp Val Thr Leu Glu Pro Leu Ser Phe Lys		
450	455	460
Lys Glu Ala Val Leu Ile Gln Ala Gly Glu Tyr Met Gly Gln Leu Leu		
465	470	475 480
Glu Gln Ala Ser Leu His Phe Phe Val Thr Ala Arg Ile Asn Glu Thr		
485	490	495
Arg Asp Val Leu Ala Lys Gln Lys Ser Thr Val Leu Thr Ile Pro Glu		
500	505	510
Ile Ile Ile Lys Val Arg Gly Thr Gln Val Val Gly Ser Asp Met Thr		
515	520	525
Val Thr Val Glu Phe Thr Asn Pro Leu Lys Glu Thr Leu Arg Asn Val		



1409

530                      535                      540  
 Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met  
 545                      550                      555                      560  
 Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys  
                     565                      570                      575  
 Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser  
                     580                      585                      590  
 Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg  
                     595                      600                      605  
 Arg Pro Ser Met  
 610

<210> 1359  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 1359  
 Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln  
 1                      5                      10                      15  
 Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala  
                     20                      25                      30  
 Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser  
                     35                      40                      45  
 His Ser Thr Glu Leu Gln Val Ile  
                     50                      55

<210> 1360  
 <211> 415  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (368)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

<222> (374)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (379)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (381)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (384)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (385)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (386)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (389)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (397)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (404)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (405)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (409)

1411

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1360

Gly	Gly	Gly	Gly	Glu	Lys	Met	Ala	Asp	Asp	Pro	Ser	Ala	Ala	Asp	Arg
1				5					10					15	

Asn	Val	Glu	Ile	Trp	Lys	Ile	Lys	Lys	Leu	Ile	Lys	Ser	Leu	Glu	Ala
		20						25					30		

Ala	Arg	Gly	Asn	Gly	Thr	Ser	Met	Ile	Ser	Leu	Ile	Ile	Pro	Pro	Lys
		35					40					45			

Asp	Gln	Ile	Ser	Arg	Val	Ala	Lys	Met	Leu	Ala	Asp	Glu	Phe	Gly	Thr
	50						55				60				

Ala	Ser	Asn	Ile	Lys	Ser	Arg	Val	Asn	Arg	Leu	Ser	Val	Leu	Gly	Ala
65				70						75					80

Ile	Thr	Ser	Val	Gln	Gln	Arg	Leu	Lys	Leu	Tyr	Asn	Lys	Val	Pro	Pro
				85					90					95	

Asn	Gly	Leu	Val	Val	Tyr	Cys	Gly	Thr	Ile	Val	Thr	Glu	Glu	Gly	Lys
		100						105					110		

Glu	Lys	Lys	Val	Asn	Ile	Asp	Phe	Glu	Pro	Phe	Lys	Pro	Ile	Asn	Thr
	115						120					125			

Ser	Leu	Tyr	Leu	Cys	Asp	Asn	Lys	Phe	His	Thr	Glu	Ala	Leu	Thr	Ala
	130						135					140			

Leu	Leu	Ser	Asp	Asp	Ser	Lys	Phe	Gly	Phe	Ile	Val	Ile	Asp	Gly	Ser
145						150				155					160

Gly	Ala	Leu	Phe	Gly	Thr	Leu	Gln	Gly	Asn	Thr	Arg	Glu	Val	Leu	His
				165					170					175	

Lys	Phe	Thr	Val	Asp	Leu	Pro	Lys	Lys	His	Gly	Arg	Gly	Gly	Gln	Ser
			180					185						190	

Ala	Leu	Arg	Phe	Ala	Arg	Leu	Arg	Met	Glu	Lys	Arg	His	Asn	Tyr	Val
		195					200						205		

Arg	Lys	Val	Ala	Glu	Thr	Ala	Val	Gln	Leu	Phe	Ile	Ser	Gly	Asp	Lys
	210						215					220			

Val	Asn	Val	Ala	Gly	Leu	Val	Leu	Ala	Gly	Ser	Ala	Asp	Phe	Lys	Thr
225					230					235					240

Glu	Leu	Ser	Gln	Ser	Asp	Met	Phe	Asp	Gln	Arg	Leu	Gln	Ser	Lys	Val
				245					250						255

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln  
                   260                  265                  270  
 Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln  
                   275                  280                  285  
 Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr  
                   290                  295                  300  
 Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met  
                   305                  310                  315                  320  
 Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg  
                   325                  330                  335  
 Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu  
                   340                  345                  350  
 Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa  
                   355                  360                  365  
 Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa  
                   370                  375                  380  
 Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro  
                   385                  390                  395                  400  
 Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly  
                   405                  410                  415

&lt;210&gt; 1361

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp  
   1                  5                  10                  15  
 Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro  
                   20                  25                  30  
 Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr  
                   35                  40                  45  
 Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys  
                   50                  55                  60  
 Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

1413

65		70		75		80									
Trp	Leu	Lys	Pro	Glu	Leu	Phe	Arg	Ile	Gly	Ala	Ser	Thr	Leu	Leu	Ser
				85					90					95	
Asp	Ile	Glu	Arg	Gln	Ile	Tyr	His	His	Val	Thr	Gly	Arg	Tyr	Ala	Ala
			100					105					110		
Tyr	His	Asp	Leu	Pro	Met	Ser									
			115												

&lt;210&gt; 1362

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1362

Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Phe	Thr	Ala	Lys
1				5					10					15	

Val	Trp	Asp	Ala	Val	Ser	Gly	Asp	Glu	Leu	Met	Thr	Leu	Ala	His	Lys
			20					25					30		

His	Xaa	Xaa	Lys	Thr	Val	Asp	Phe	Thr	Gln	Asp	Ser	Asn	Tyr	Leu	Leu
			35				40					45			

Thr	Gly	Gly	Gln	Asp	Lys	Leu	Leu	Arg	Ile	Tyr	Asp	Leu	Asn	Lys	Pro
	50					55					60				

Glu	Ala	Glu	Pro	Lys	Glu	Ile	Ser	Gly	His	Thr	Ser	Gly	Ile	Lys	Lys
65					70					75				80	

Ala	Leu	Trp	Cys	Ser	Glu	Asp	Lys	Gln	Ile	Leu	Ser	Ala	Asp	Asp	Lys
				85				90						95	

Thr	Val	Arg	Leu	Trp	Asp	His	Ala	Thr	Met	Thr	Glu	Val	Lys	Ser	Leu
			100				105						110		

Asn	Phe	Asn	Met	Ser	Val	Ser	Ser	Met	Glu	Tyr	Ile	Pro	Glu	Gly	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1414

115	120	125
Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val		
130	135	140
Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser		
145	150	155
Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp		
165	170	175
Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser		
180	185	190
Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp		
195	200	205
Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp		
210	215	220
Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro		
225	230	235
Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu		
245	250	255
Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys		
260	265	270
Ile Phe Pro Ser Ala Pro Asp Val Lys Ala		
275	280	

&lt;210&gt; 1363

&lt;211&gt; 334

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1363

Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro		
1	5	10
Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly		
20	25	30
Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Gly Arg Gly		
35	40	45
Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly		
50	55	60

1415

Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Phe	His	Ser	Gly	65	70	75	80
Gly	Asn	Arg	Gly	Arg	Gly	Arg	Gly	Gly	Lys	Arg	Gly	Asn	Gln	Ser	Gly	85	90	95		
Lys	Asn	Val	Met	Val	Glu	Pro	His	Arg	His	Glu	Gly	Val	Phe	Ile	Cys	100	105	110		
Arg	Gly	Lys	Glu	Asp	Ala	Leu	Val	Thr	Lys	Asn	Leu	Val	Pro	Gly	Glu	115	120	125		
Ser	Val	Tyr	Gly	Glu	Lys	Arg	Val	Ser	Ile	Ser	Glu	Gly	Asp	Asp	Lys	130	135	140		
Ile	Glu	Tyr	Arg	Ala	Trp	Asn	Pro	Phe	Arg	Ser	Lys	Leu	Ala	Ala	Ala	145	150	155	160	
Ile	Leu	Gly	Gly	Val	Asp	Gln	Ile	His	Ile	Lys	Pro	Gly	Ala	Lys	Val	165	170	175		
Leu	Tyr	Leu	Gly	Ala	Ala	Ser	Gly	Thr	Thr	Val	Ser	His	Val	Ser	Asp	180	185	190		
Ile	Val	Gly	Pro	Asp	Gly	Leu	Val	Tyr	Ala	Val	Glu	Phe	Ser	His	Arg	195	200	205		
Ser	Gly	Arg	Asp	Leu	Ile	Asn	Leu	Ala	Lys	Lys	Arg	Thr	Asn	Ile	Ile	210	215	220		
Pro	Val	Ile	Glu	Asp	Ala	Arg	His	Pro	His	Lys	Tyr	Arg	Met	Leu	Ile	225	230	235	240	
Ala	Met	Val	Asp	Val	Ile	Phe	Ala	Asp	Val	Ala	Gln	Pro	Asp	Gln	Thr	245	250	255		
Arg	Ile	Val	Ala	Leu	Asn	Ala	His	Thr	Phe	Leu	Arg	Asn	Gly	Gly	His	260	265	270		
Phe	Val	Ile	Ser	Ile	Lys	Ala	Asn	Cys	Ile	Asp	Ser	Thr	Ala	Ser	Ala	275	280	285		
Glu	Ala	Val	Phe	Ala	Ser	Glu	Val	Lys	Lys	Met	Gln	Gln	Glu	Asn	Met	290	295	300		
Lys	Pro	Gln	Glu	Gln	Leu	Thr	Leu	Glu	Pro	Tyr	Glu	Arg	Asp	His	Ala	305	310	315	320	
Val	Val	Val	Gly	Val	Tyr	Arg	Pro	Pro	Pro	Lys	Val	Lys	Asn	325	330					

1416

&lt;210&gt; 1364

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (356)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1364

Pro Gly Ala Glu Lys Ser Gly Arg Ala Ala Glu Arg Pro Gly Arg Gly  
 1 5 10 15

Pro Gly Arg Gly Ala His Ser Arg Pro Thr Ala Pro Arg Glu Arg Ala  
 20 25 30

Pro Arg Ser Pro Ala Pro Ser Pro Pro Gly Met Gly Arg Ala Ala Ala  
 35 40 45

Ala Glu Ala Pro Ala Trp Pro Gly Arg Thr Arg Pro Glu Ala Glu Gly  
 50 55 60

Arg Ala Arg Ala Gln Leu Pro Gly His Gln Ile Gly Ala Arg Arg Ala  
 65 70 75 80

Gly Gly Pro Arg Ala Gly Leu Glu Met Ser Trp Pro Arg Arg Leu Leu  
 85 90 95

Leu Arg Tyr Leu Phe Pro Ala Leu Leu Leu His Gly Leu Gly Glu Gly  
 100 105 110

Ser Ala Leu Leu His Pro Asp Ser Arg Ser His Pro Arg Ser Leu Glu  
 115 120 125

Lys Ser Ala Trp Arg Ala Phe Lys Glu Ser Gln Cys His His Met Leu  
 130 135 140

Lys His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr  
 145 150 155 160

Ile Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro  
 165 170 175

Glu Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys  
 180 185 190

Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr



1417

195					200					205					
Thr	Leu	Ile	Ile	Arg	Gly	Lys	Ile	Arg	Leu	Arg	Gln	Ala	Ser	Trp	Ile
210						215					220				
Ile	Arg	Gly	Gly	Thr	Glu	Ala	Asp	Tyr	Gln	Leu	His	Asn	Val	Gln	Val
225						230					235				240
Ile	Cys	His	Thr	Glu	Ala	Val	Ala	Glu	Lys	Leu	Gly	Gln	Gln	Val	Asn
				245					250					255	
Arg	Thr	Cys	Pro	Gly	Phe	Leu	Ala	Asp	Gly	Gly	Pro	Trp	Val	Gln	Asp
			260					265					270		
Val	Ala	Tyr	Asp	Leu	Trp	Arg	Glu	Glu	Asn	Gly	Cys	Glu	Cys	Thr	Lys
		275					280					285			
Ala	Val	Asn	Phe	Ala	Met	His	Glu	Leu	Gln	Leu	Ile	Arg	Val	Glu	Lys
		290					295					300			
Gln	Tyr	Leu	His	His	Asn	Leu	Asp	His	Leu	Val	Glu	Glu	Leu	Phe	Leu
305						310					315				320
Gly	Asp	Ile	His	Thr	Asp	Ala	Thr	Gln	Arg	Met	Phe	Tyr	Arg	Pro	Ser
				325					330					335	
Ser	Tyr	Gln	Pro	Pro	Leu	Gln	Asn	Ala	Lys	Asn	His	Asp	His	Ala	Cys
			340					345					350		
Ile	Ala	Cys	Xaa	Ile	Ile	Tyr	Arg	Ser	Asp	Glu	His	His	Pro	Pro	Ile
		355					360					365			
Leu	Pro	Pro	Lys	Ala	Asp	Leu	Thr	Ile	Gly	Leu	His	Gly	Glu	Trp	Val
		370					375					380			
Ser	Gln	Arg	Cys	Glu	Val	Arg	Pro	Glu	Val	Leu	Phe	Leu	Thr	Arg	His
385						390					395				400
Phe	Ile	Phe	His	Asp	Asn	Asn	Asn	Thr	Trp	Glu	Gly	His	Tyr	Tyr	His
				405					410					415	
Tyr	Ser	Asp	Pro	Val	Cys	Lys	His	Pro	Thr	Phe	Ser	Ile	Tyr	Ala	Arg
			420					425					430		
Gly	Arg	Tyr	Ser	Arg	Gly	Val	Leu	Ser	Ser	Arg	Val	Met	Gly	Gly	Thr
		435					440					445			
Glu	Phe	Val	Phe	Lys	Val	Asn	His	Met	Lys	Val	Thr	Pro	Met	Asp	Ala
		450					455					460			
Ala	Thr	Ala	Ser	Leu	Leu	Asn	Val	Phe	Asn	Gly	Asn	Glu	Cys	Gly	Ala

1418

465				470				475				480			
Glu	Gly	Ser	Trp	Gln	Val	Gly	Ile	Gln	Gln	Asp	Val	Thr	His	Thr	Asn
				485				490				495			
Gly	Cys	Val	Ala	Leu	Gly	Ile	Lys	Leu	Pro	His	Thr	Glu	Tyr	Glu	Ile
				500				505				510			
Phe	Lys	Met	Glu	Gln	Asp	Ala	Arg	Gly	Arg	Tyr	Leu	Leu	Phe	Asn	Gly
				515				520				525			
Gln	Arg	Pro	Ser	Asp	Gly	Ser	Ser	Pro	Asp	Arg	Pro	Glu	Lys	Arg	Ala
				530				535				540			
Thr	Ser	Tyr	Gln	Met	Pro	Leu	Val	Gln	Cys	Ala	Ser	Ser	Ser	Pro	Arg
545				550				555				560			
Ala	Glu	Asp	Leu	Ala	Glu	Asp	Ser	Gly	Ser	Ser	Leu	Tyr	Gly	Arg	Ala
				565				570				575			
Pro	Gly	Arg	His	Thr	Trp	Ser	Leu	Leu	Leu	Ala	Ala	Leu	Ala	Cys	Leu
				580				585				590			
Val	Pro	Leu	Leu	His	Trp	Asn	Ile	Arg	Arg						
				595				600							

**<210> 1365**

**<211> 158**

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (40)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

<221> SITE

&lt;222&gt; (98)

1419

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1365

Ser	Asn	Ser	Gly	Tyr	Pro	Phe	Trp	Thr	Pro	Ser	Met	Leu	Trp	Lys	Leu
1				5					10					15	

Cys	Thr	Phe	Thr	Leu	Leu	Asn	Lys	Ala	Xaa	Ser	Phe	Phe	Ser	Leu	Ser
			20					25					30		

Val	His	Val	Ser	Phe	Thr	His	Xaa	Gly	Gln	Leu	Pro	His	His	Phe	Phe
	35						40					45			

Gly	Val	Ala	Trp	Gln	Glu	Pro	Gln	Val	Leu	His	Leu	Gly	Glu	Pro	Asp
	50					55					60				

Arg	Arg	Leu	Gln	Lys	Arg	Ile	Lys	Ala	Ile	Lys	Leu	Gln	Xaa	Ile	Leu
65					70					75					80

Gln	Met	Glu	Pro	Gln	Met	Ser	Ser	Ala	His	Gly	Phe	Tyr	Arg	Gly	Pro
				85					90					95	

Leu	Xaa	Gln	Pro	Ala	Gly	Pro	Ser	Ile	Thr	Leu	Glu	Asn	Ser	Pro	Leu
			100					105						110	

Glu	Asp	Thr	Lys	Leu	Gln	Gly	Pro	Phe	Phe	Thr	Pro	Asn	Gln	Gln	Glu
	115						120					125			

Val	Ala	Arg	Thr	Asp	Cys	His	Xaa	Val	Pro	Asn	Ser	Xaa	Xaa	Gly	Cys
	130					135					140				

Pro	Val	Leu	Glu	Ala	Gly	Phe	Arg	Gly	Gly	Ala	Gln	Leu	Gly
145					150					155			

&lt;210&gt; 1366

1420

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (205)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (220)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (347)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1366

Ser	Thr	Arg	Xaa	Arg	Glu	Gly	Asn	Ser	His	Ser	Xaa	Gly	His	Lys	Thr
1				5					10					15	

Ile	Gln	Gly	Ser	Leu	Gly	Arg	Leu	Ser	Ser	Ala	Val	Pro	Gly	Ser	Gly
			20					25						30	

Ala	Glu	Leu	Ser	Pro	Val	Pro	Asn	Thr	Asp	Gly	Thr	Met	Asn	Ser	Gly
			35					40						45	

His	Ser	Phe	Ser	Gln	Thr	Pro	Ser	Ala	Ser	Phe	His	Gly	Ala	Gly	Gly
			50					55				60			

Gly	Trp	Gly	Arg	Pro	Arg	Ser	Phe	Pro	Arg	Ala	Pro	Thr	Val	His	Gly
			65				70				75				80

Gly	Ala	Gly	Gly	Ala	Arg	Ile	Ser	Leu	Ser	Phe	Thr	Thr	Arg	Ser	Cys
							85				90				95

Pro	Pro	Pro	Gly	Gly	Ser	Trp	Gly	Ser	Gly	Arg	Ser	Ser	Pro	Leu	Leu
							100				105				110

1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala  
 115 120 125

Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu  
 130 135 140

Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys  
 145 150 155 160

Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln  
 165 170 175

Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp  
 180 185 190

Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu  
 195 200 205

His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg  
 210 215 220

Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val  
 225 230 235 240

Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln  
 245 250 255

Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys  
 260 265 270

Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met  
 275 280 285

Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp  
 290 295 300

Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser  
 305 310 315 320

Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg  
 325 330 335

Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys  
 340 345 350

Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys  
 355 360 365

Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu  
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val  
385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg  
405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser  
420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu  
435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys  
450 455 460

His Ala  
465

<210> 1367  
<211> 153  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (136)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (138)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (141)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (142)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (143)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1423

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1367

Leu Arg Phe Ala Ser Pro Gly Pro Gly Ala Gly Arg Ala Arg Asp Ser  
1 5 10 15

Gln Arg Lys Trp Arg Arg Leu Arg Ala Arg Pro Leu Leu Gly Pro Gly  
20 25 30

Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg  
35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala  
50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala  
65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp  
85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro  
100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala  
115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr  
130 135 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala  
145 150

&lt;210&gt; 1368

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1424

&lt;400&gt; 1368

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Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr
 1           5           10           15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu
      20           25           30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu
 35           40           45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg
 50           55           60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser
 65           70           75           80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met
      85           90           95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile
      100           105           110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu
      115           120           125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile
      130           135           140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly
      145           150           155           160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu
      165           170           175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu
      180           185           190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr
      195           200           205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys
      210           215           220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro
      225           230           235           240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu
      245           250           255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu

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1425

260	265	270
Asn Lys Lys Asn Val Glu Ala Ile Gly Leu Leu Gly Gly Gln Lys Ser		
275	280	285
Lys Ala Asp Tyr Glu Leu Tyr Asn Lys Ala Ser Asn Pro Asp Lys Val		
290	295	300
Ala Ser Thr Ala Phe Ala Glu Asn Arg Asn Ser Glu Thr Ser Asp Thr		
305	310	315 320
Thr Gly Thr His Glu Ser Asp Arg Asn Lys Glu Ser Ser Asp Gln Thr		
	325	330 335
Gly Ile Asn Ile Ser Gly Phe Glu Asn Lys Ile Ser Tyr Val Val Gln		
	340	345 350
Ser Leu Lys Glu Tyr Glu Gly Lys Trp Leu Leu Phe Asp Asp Ser Glu		
	355	360 365
Val Lys Val Thr Glu Glu Lys Asp Phe Leu Asn Ser Leu Ser Pro Ser		
	370	375 380
Thr Ser Pro Thr Ser Thr Pro Tyr Leu Leu Phe Tyr Lys Lys Leu		
385	390	395

&lt;210&gt; 1369

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1369

Val Phe Xaa Ser Phe Phe Ala Glu Lys Glu Gln Gln Glu Ala Ile Glu
1 5 10 15

His Ile Asp Glu Val Gln Asn Glu Ile Asp Arg Leu Asn Glu Gln Ala
20 25 30

Ser Glu Glu Ile Leu Lys Val Glu Gln Lys Tyr Asn Lys Leu Arg Gln
35 40 45

Pro Phe Phe Gln Lys Arg Ser Glu Leu Ile Ala Lys Ile Pro Asn Phe
50 55 60

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly  
 65 70 75 80  
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr  
 85 90 95  
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp  
 100 105 110  
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu  
 115 120 125  
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys  
 130 135 140  
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala  
 145 150 155 160  
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe  
 165 170 175  
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys  
 180 185 190  
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met  
 195 200 205  
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu  
 210 215 220  
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly  
 225 230 235 240  
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu  
 245 250 255  
 Gly Glu Asp Asp  
 260

&lt;210&gt; 1370

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln  
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

20					25					30					
Gln	Gly	Gly	Lys	Ala	Arg	Ala	Lys	Ala	Lys	Ser	Arg	Ser	Ser	Arg	Ala
	35					40					45				
Gly	Leu	Gln	Phe	Pro	Val	Gly	Glu	Cys	Ile	Ala	Leu	Arg	Lys	Gly	Asn
	50					55					60				
Tyr	Ala	Glu	Arg	Val	Gly	Ala	Gly	Ala	Pro	Val	Tyr	Met	Ala	Ala	Val
	65					70					75				80
Leu	Glu	Tyr	Leu	Thr	Ala	Glu	Ile	Leu	Glu	Leu	Ala	Gly	Asn	Ala	Ala
				85					90					95	
Arg	Asp	Asn	Lys	Lys	Thr	Arg	Ile	Ile	Pro	Arg	His	Leu	Gln	Leu	Ala
		100						105					110		
Ile	Arg	Asn	Asp	Glu	Glu	Leu	Asn	Lys	Leu	Leu	Gly	Lys	Val	Thr	Ile
		115					120					125			
Ala	Gln	Gly	Gly	Val	Leu	Pro	Asn	Ile	Gln	Ala	Val	Leu	Leu	Pro	Lys
	130					135					140				
Lys	Thr	Glu	Ser	His	His	Lys	Ala	Lys	Gly	Lys					
	145					150					155				

&lt;210&gt; 1371

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1371

Phe	Pro	Gly	Arg	Thr	His	Ala	Leu	Cys	Arg	Gly	Ala	Ala	Ser	Arg	Gly
1				5					10					15	
Leu	Leu	Cys	Lys	Trp	Ala	Pro	Trp	Pro	Ser	Ala	Pro	Val	Pro	Ala	Thr
		20						25					30		
Arg	Asp	Arg	Ala	Pro	Arg	Pro	Ala	Arg	Gly	Arg	Arg	Pro	Asp	Pro	Thr
	35						40					45			
Ser	Gln	Gln	Ala	Lys	Ala	Trp	Arg	Pro	Ser	Pro	Pro	Ala	Ala	Arg	Ser
	50					55						60			
Trp	Pro	Pro	Thr	Thr	Thr	Thr	Gly	Ala	Ala	Trp	Val	Pro	Leu	Pro	Ala
	65				70					75					80
Thr	Ala	Pro	Ala	Ala	Val	Pro	Ser	Ala	Pro	Gly	Lys	Pro	Phe	Pro	Thr
				85					90					95	

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser  
                   100                  105                  110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro  
                   115                  120                  125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala  
                   130                  135                  140

<210> 1372

<211> 150

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala  
       1                  5                  10                  15

1429

Gly Ser Arg Arg Arg Phe Ser Asp Ser Glu Gly Glu Glu Thr Val Pro  
                   20                  25                  30  
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn  
                   35                  40                  45  
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val  
                   50                  55                  60  
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser  
                   65                  70                  75                  80  
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn  
                   85                  90                  95  
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu  
                   100                  105                  110  
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa  
                   115                  120                  125  
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys  
                   130                  135                  140  
 Ala Leu Xaa Gly Thr Ala  
                   145                  150

&lt;210&gt; 1373

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1373

Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg  
           1                  5                  10                  15  
 Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro  
                   20                  25                  30

1430

Glu His Val Asp Ala His Pro Pro Leu Ser Leu Met Glu Val Val Thr  
 35 40 45

Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu  
 50 55 60

Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His  
 65 70 75 80

Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu  
 85 90 95

Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln  
 100 105 110

Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala  
 115 120 125

<210> 1374

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1374

Ser Ser Trp Leu Arg Ser Arg Ser Gly Met Gln Thr Asp Leu Gln Asn  
 1 5 10 15

Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln  
 20 25 30

Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp  
 35 40 45

Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys  
 50 55 60

Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly  
 65 70 75 80

Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp  
 85 90 95

Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser  
 100 105 110

Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

1431

115	120	125
Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu		
130	135	140
Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr		
145	150	155
Val Lys Lys Glu Glu Ser Pro Pro Pro Pro Lys Val Val Asn Pro Leu		
	165	170
		175
Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu		
	180	185
		190
Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro		
	195	200
		205
Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu		
	210	215
		220
Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro		
	225	230
		235
		240
Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys		
	245	250
		255
Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu		
	260	265
		270
Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly		
	275	280
		285
Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys		
	290	295
		300
Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp		
	305	310
		315
		320
Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala		
	325	330
		335
Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu		
	340	345
		350
Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly		
	355	360
		365
Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp		
	370	375
		380
Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp		

1432

385

390

395

&lt;210&gt; 1375

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (161)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1375

His	Arg	Gly	Lys	Arg	Tyr	Thr	Asp	Ser	Thr	Val	Arg	Asn	Ser	Arg	Val
1				5					10					15	

Asp	Pro	Arg	Val	Arg	Ser	Ala	Lys	Pro	Glu	Ser	Cys	Pro	Phe	Ser	Leu
			20					25					30		

Pro	Gly	Gln	His	Glu	Leu	His	His	Ser	Leu	His	Leu	Leu	His	Gln	Leu
		35					40					45			

Pro	Val	Pro	Gly	Leu	Cys	Pro	Gly	Ala	Gln	Leu	Arg	Arg	Pro	Ala	Gly
	50					55					60				

Gln	Gln	Arg	Gly	Gln	Arg	Leu	Cys	Arg	Arg	Trp	Gly	Leu	Trp	Phe	Pro
65					70					75					80

Asp	Leu	Arg	Val	Pro	Leu	His	Gln	Leu	Gln	Gly	Arg	His	Gly	Val	Arg
			85						90					95	

Gly	Pro	Gly	His	Arg	Asp	Ser	Arg	Gly	Ser	Gly	Arg	Asn	Gly	Ser	Ile
			100					105					110		

Gln	Asn	Glu	Lys	Glu	Thr	Met	Gln	Lys	Leu	Asn	Asp	Arg	Leu	Ala	Ser
		115						120				125			

Tyr	Leu	Asp	Lys	Met	Lys	Glu	Pro	Gly	Asp	Arg	Glu	Thr	Gly	Gly	Trp
	130					135					140				



1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg  
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln  
 165

<210> 1376

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp  
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg  
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly  
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu  
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu  
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser  
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu  
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu  
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu  
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser  
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg  
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe  
 180 185 190

1434

Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu Pro Leu  
 195 200 205

Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp Gly Glu  
 210 215 220

Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu Ile Glu  
 225 230 235 240

Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met Arg Ala  
 245 250 255

Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile Ala Glu  
 260 265 270

Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu Lys Glu  
 275 280 285

Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn Gly His  
 290 295 300

Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp Val Lys  
 305 310 315 320

Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu Val Arg  
 325 330 335

Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser Leu Lys  
 340 345 350

Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala Val Val  
 355 360 365

Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val Ala Tyr  
 370 375 380

Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val Gly Leu  
 385 390 395 400

Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala Val Gly  
 405 410 415

Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu Phe Ala  
 420 425 430

Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys Gln Lys  
 435 440 445

1435

&lt;210&gt; 1377

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu  
 1 5 10 15

Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg  
 20 25 30

Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val  
 35 40 45

Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His  
 50 55 60

Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp  
 65 70 75 80

Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu  
 85 90 95

Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val  
 100 105 110

Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro  
 115 120 125

Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala  
 130 135 140

Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp  
 145 150 155 160

Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn  
 165 170 175

His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg  
 180 185 190

Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu  
 195 200 205

Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala  
 210 215 220

Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

225                      230                      235                      240  
 Lys Leu Gly Ser Met His Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu  
                                  245                      250                      255  
 Asp Pro Val Thr Glu Arg Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser  
                                  260                      265                      270  
 Gly Leu Val Thr Arg Leu Arg Glu Arg Pro Ala Leu Leu Val Ser Ser  
                                  275                      280                      285  
 Thr Ser Trp Thr Glu Asp Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu  
                                  290                      295                      300  
 Glu Lys Phe Glu Gln Leu Thr Leu Asp Gly His Asn Leu Pro Ser Leu  
 305                                   310                      315                      320  
 Val Cys Val Ile Thr Gly Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg  
                                  325                      330                      335  
 Leu Ile His Gln Lys His Phe Gln His Ile Gln Val Cys Thr Pro Trp  
                                  340                      345                      350  
 Leu Glu Ala Glu Asp Tyr Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly  
                                  355                      360                      365  
 Val Cys Leu His Thr Ser Ser Ser Gly Leu Asp Leu Pro Met Lys Val  
                                  370                      375                      380  
 Val Asp Met Phe Gly Cys Cys Leu Pro Val Cys Ala Val Asn Phe Lys  
 385                                   390                      395                      400  
 Cys Leu His Glu Leu Val Lys His Glu Glu Asn Gly Leu Val Phe Glu  
                                  405                      410                      415  
 Asp Ser Glu Glu Leu Ala Ala Gln Leu Gln Met Leu Phe Ser Asn Phe  
                                  420                      425                      430  
 Pro Asp Pro Ala Gly Lys Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu  
                                  435                      440                      445  
 Ser Gln Gln Leu Arg Trp Asp Glu Ser Trp Val Gln Thr Val Leu Pro  
                                  450                      455                      460  
 Leu Val Met Asp Thr  
 465

&lt;210&gt; 1378

&lt;211&gt; 314

1437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1378

Glu Lys Ala Ala Gly Ala Gly Lys Ser His Leu Ala Ile Val Gln Lys

1

5

10

15

Val Asn Asn Glu Gly Glu Gly Asp Pro Phe Tyr Glu Val Leu Gly Leu

20

25

30

Val Thr Leu Glu Asp Val Ile Glu Glu Ile Ile Lys Ser Glu Ile Leu

35

40

45

Asp Glu Ser Asp Met Tyr Thr Asp Asn Arg Ser Arg Lys Arg Val Ser

50

55

60

Glu Lys Asn Lys Arg Asp Phe Ser Ala Phe Lys Asp Ala Asp Asn Glu

65

70

75

80

Leu Lys Val Lys Ile Ser Pro Gln Leu Leu Leu Ala Xaa His Arg Phe

85

90

95

Leu Ala Thr Glu Val Ser Gln Phe Ser Pro Ser Leu Ile Ser Glu Lys

100

105

110

Ile Leu Leu Arg Leu Leu Lys Tyr Pro Asp Val Ile Gln Glu Leu Lys

115

120

125

Phe Asp Glu His Asn Lys Tyr Tyr Ala Arg His Tyr Leu Tyr Thr Arg

130

135

140

Asn Lys Pro Ala Asp Tyr Phe Ile Leu Ile Leu Gln Gly Lys Val Glu

145

150

155

160

Val Glu Ala Gly Lys Glu Asn Met Lys Phe Glu Thr Gly Ala Phe Ser

165

170

175

Tyr Tyr Gly Thr Met Ala Leu Thr Ser Val Pro Ser Asp Arg Ser Pro

180

185

190

Ala His Pro Thr Pro Leu Ser Arg Ser Ala Ser Leu Ser Tyr Pro Asp

195

200

205

Arg Thr Asp Val Ser Thr Ala Ala Thr Leu Ala Gly Ser Ser Asn Gln

210

215

220

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg  
225 230 235 240

Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln  
245 250 255

Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile  
260 265 270

Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu  
275 280 285

Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu  
290 295 300

Leu His Lys Ala Ser His Glu Asn Ala Ile  
305 310

<210> 1379

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1379

Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe  
1 5 10 15

Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp  
20 25 30

His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys  
35 40 45

Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val  
50 55 60

Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro  
65 70 75 80

Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His  
85 90 95

Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu  
100 105 110

Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln  
115 120 125

Ser His Leu

1439

130

&lt;210&gt; 1380

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1380

Pro Gly Ala Ala Trp Ser Arg Pro Asp Leu Arg Gly Cys Cys Thr Gly  
 1 5 10 15

Pro Gln Pro Ala Leu Arg Met Leu Val Leu Pro Ser Pro Cys Pro Gln  
 20 25 30

Pro Leu Ala Phe Ser Ser Val Glu Thr Met Glu Gly Pro Pro Arg Arg  
 35 40 45

Thr Cys Arg Ser Pro Glu Pro Gly Pro Ser Ser Ser Ile Gly Ser Pro  
 50 55 60

Gln Ala Ser Ser Pro Pro Arg Pro Asn His Tyr Leu Leu Ile Asp Thr  
 65 70 75 80

Gln Gly Val Pro Tyr Thr Val Leu Val Asp Glu Glu Ser Gln Arg Glu  
 85 90 95

Pro Gly Ala Ser Gly Ala Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro  
 100 105 110

Val Cys Ser Arg Val Phe Glu Tyr Met Ser Tyr Leu Gln Arg His Ser  
 115 120 125

Ile Thr His Ser Glu Val Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys  
 130 135 140

Ala Phe Lys Arg Ala Ser His Leu Ala Arg His His Ser Ile His Leu  
 145 150 155 160

Ala Gly Gly Gly Arg Pro His Gly Cys Pro Leu Cys Pro Arg Arg Phe  
 165 170 175

Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg Val His Ser Gly Glu  
 180 185 190

Arg Pro Phe Gln Cys Pro His Cys Pro Arg Arg Phe Met Glu Gln Asn  
 195 200 205

Thr Leu Gln Lys His Thr Arg Trp Lys His Pro  
 210 215

1440

&lt;210&gt; 1381

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1381

Gly Val Ala Leu Phe Lys Ser Ala Ala Gly Asp Gln Pro Thr Ala Ala  
 1 5 10 15

Cys Ile Cys Ile Gln Arg Gln Val Pro Pro Val Pro Ala Ala Arg Ala  
 20 25 30

Pro Gln Ser Arg Thr Arg Ser Ala Gln Ala Lys Leu Ala Leu Thr Met  
 35 40 45

Pro Val Lys Gly Gly Thr Lys Cys Ile Lys Tyr Leu Leu Phe Gly Phe  
 50 55 60

Asn Phe Ile Phe Trp Leu Ala Gly Ile Ala Val Leu Ala Ile Gly Leu  
 65 70 75 80

Trp Leu Arg Phe Asp Ser Gln Thr Lys Ser Ile Phe Glu Gln Glu Thr  
 85 90 95

Asn Asn Asn Asn Ser Ser Phe Tyr Thr Gly Val Tyr Ile Leu Ile Gly  
 100 105 110

Ala Gly Ala Leu Met Met Leu Val Gly Phe Leu Gly Cys Cys Gly Ala  
 115 120 125

Val Gln Glu Ser Gln Cys Met Leu Gly Leu Phe Phe Gly Phe Leu Leu  
 130 135 140

Val Ile Phe Ala Ile Glu Ile Ala Ala Ala Ile Trp Gly Tyr Ser His  
 145 150 155 160

Lys Asp Glu Val Ile Lys Glu Val Gln Glu Phe Tyr Lys Asp Thr Tyr  
 165 170 175

Asn Lys Leu Lys Thr Lys Asp Glu Pro Gln Arg Glu Thr Leu Lys Ala  
 180 185 190

Ile His Tyr Ala Leu Asn Cys Cys Gly Leu Ala Gly Gly Val Glu Gln  
 195 200 205

Phe Ile Ser Asp Ile Cys Pro Lys Lys Asp Val Leu Glu Thr Phe Thr  
 210 215 220



1441

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe  
225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe  
245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg  
260 265 270

Glu Met Val  
275

<210> 1382

<211> 766

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala  
1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser  
20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met  
35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu  
50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr  
65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

85										90					95				
Val	Asp	Leu	Asp	Asp	Val	Ala	Glu	Asp	Asp	Pro	Glu	Leu	Val	Asp	Ser				
			100					105					110						
Ile	Cys	Glu	Asn	Ala	Arg	Arg	Tyr	Ala	Lys	Xaa	Phe	Ala	Asp	Ala	Val				
			115					120					125						
Gln	Glu	Leu	Leu	Pro	Gln	Tyr	Lys	Glu	Arg	Glu	Val	Val	Asn	Lys	Asp				
			130					135					140						
Val	Leu	Asp	Val	Tyr	Ile	Glu	His	Arg	Leu	Met	Met	Glu	Gln	Arg	Ser				
145						150					155					160			
Arg	Asp	Pro	Gly	Met	Val	Arg	Ser	Pro	Gln	Asn	Gln	Tyr	Pro	Ala	Glu				
			165					170					175						
Leu	Met	Arg	Arg	Phe	Glu	Leu	Tyr	Phe	Gln	Gly	Pro	Ser	Ser	Asn	Lys				
			180					185					190						
Pro	Arg	Val	Ile	Arg	Glu	Val	Arg	Ala	Asp	Ser	Val	Gly	Lys	Leu	Val				
			195					200					205						
Thr	Val	Arg	Gly	Ile	Val	Thr	Arg	Val	Ser	Glu	Val	Lys	Pro	Lys	Met				
210						215					220								
Val	Val	Ala	Thr	Tyr	Thr	Cys	Asp	Gln	Cys	Gly	Ala	Glu	Thr	Tyr	Gln				
225						230					235					240			
Pro	Ile	Gln	Ser	Pro	Thr	Phe	Met	Pro	Leu	Ile	Met	Cys	Pro	Ser	Gln				
			245					250					255						
Glu	Cys	Gln	Thr	Asn	Arg	Ser	Gly	Gly	Arg	Leu	Tyr	Leu	Gln	Thr	Arg				
			260					265					270						
Gly	Ser	Arg	Phe	Ile	Lys	Phe	Gln	Glu	Met	Lys	Met	Gln	Glu	His	Ser				
			275					280					285						
Asp	Gln	Val	Pro	Val	Gly	Asn	Ile	Pro	Arg	Ser	Ile	Thr	Val	Leu	Val				
290						295					300								
Glu	Gly	Glu	Asn	Thr	Arg	Ile	Ala	Gln	Pro	Gly	Asp	His	Val	Ser	Val				
305						310					315					320			
Thr	Gly	Ile	Phe	Leu	Pro	Ile	Leu	Arg	Thr	Gly	Phe	Arg	Gln	Val	Val				
			325					330					335						
Gln	Gly	Leu	Leu	Ser	Glu	Thr	Tyr	Leu	Glu	Ala	His	Arg	Ile	Val	Lys				
			340					345					350						
Met	Asn	Lys	Ser	Glu	Asp	Asp	Glu	Ser	Gly	Ala	Gly	Glu	Leu	Thr	Arg				

1443

355		360		365
Glu Glu Leu Arg Gln Ile Ala Glu Glu Asp Phe Tyr Glu Lys Leu Ala				
370		375		380
Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala				
385		390		400
Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met				
	405		410	415
Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val				
	420		425	430
Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser				
	435		440	445
Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala				
	450		455	460
Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala				
	465		470	475
Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys				
	485		490	495
Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln				
	500		505	510
Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg				
	515		520	525
Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro				
	530		535	540
Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser				
	545		550	555
Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn				
	565		570	575
Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg				
	580		585	590
Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg				
	595		600	605
Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu				
	610		615	620
Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp				

1444

625                      630                      635                      640  
 Ala Ser Lys Asp Ala Thr Tyr Thr Ser Ala Arg Thr Leu Leu Ala Ile  
                                 645                      650                      655  
 Leu Arg Leu Ser Thr Ala Leu Ala Arg Leu Arg Met Val Asp Val Val  
                                 660                      665                      670  
 Glu Lys Glu Asp Val Asn Glu Ala Ile Arg Leu Met Glu Met Ser Lys  
                                 675                      680                      685  
 Asp Ser Leu Leu Gly Asp Lys Gly Gln Thr Ala Arg Thr Gln Arg Pro  
                                 690                      695                      700  
 Ala Asp Val Ile Phe Ala Thr Val Arg Glu Leu Val Ser Gly Gly Arg  
 705                                  710                      715                      720  
 Ser Val Arg Phe Ser Glu Ala Glu Gln Arg Cys Val Ser Arg Gly Phe  
                                 725                      730                      735  
 Thr Pro Ala Gln Phe Gln Ala Ala Leu Asp Glu Tyr Glu Glu Leu Asn  
                                 740                      745                      750  
 Val Trp Gln Val Asn Ala Ser Arg Thr Arg Ile Thr Phe Val  
                                 755                      760                      765

&lt;210&gt; 1383

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1383

Phe Arg Pro Gly Ser Pro Arg Gln Pro Arg Ala Gln Pro Ile Ser Ala  
 1                                  5                                  10                                  15  
 Pro Asp Cys Thr Arg Ala Met Val Gly Arg Arg Ala Leu Ile Val Leu  
                                 20                                  25                                  30  
 Ala His Ser Glu Arg Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala  
                                 35                                  40                                  45  
 Ala Ala Ala Leu Lys Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu  
                                 50                                  55                                  60  
 Tyr Ala Met Asn Phe Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly  
 65                                  70                                  75                                  80  
 Lys Leu Lys Asp Pro Ala Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu  
                                 85                                  90                                  95

1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys  
 100 105 110

Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp  
 115 120 125

Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile  
 130 135 140

Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe  
 145 150 155 160

Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser  
 165 170 175

Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp  
 180 185 190

Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu  
 195 200 205

Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile  
 210 215 220

Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu  
 225 230 235 240

Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln  
 245 250 255

Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys  
 260 265 270

Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr  
 275 280 285

Asp Asn Gln Ile Lys Ala Arg Lys  
 290 295

&lt;210&gt; 1384

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr  
 1 5 10 15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                  25                  30  
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
                   35                  40                  45  
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
                   50                  55                  60  
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
                   65                  70                  75                  80  
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                   85                  90                  95  
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
                   100                  105                  110  
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
                   115                  120                  125  
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
                   130                  135                  140  
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
                   145                  150                  155                  160  
 Asp Phe Met Ser Leu  
                   165

&lt;210&gt; 1385

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro  
                   1                  5                  10                  15  
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu  
                   20                  25                  30  
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala  
                   35                  40                  45  
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln  
                   50                  55                  60  
 Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

1447

65		70		75		80
Leu Ala Thr Tyr Thr Asn Lys Asn Gly Ser Phe Ala Asn Leu Arg Ile						
	85			90		95
Tyr Pro His Gly Leu Val Leu Leu Asp Leu Gln Ser Tyr Asp Gly Asp						
	100			105		110
Ala Gln Gly Lys Glu Glu Ile Asp Ser Ile Leu Asn Lys Val Glu Glu						
	115			120		125
Arg Met Lys Glu Leu Ser Gln Asp Ser Thr Gly Arg Val Lys Arg Leu						
	130			135		140
Pro Pro Ile Val Arg Gly Gly Ala Ile Asp Arg Tyr Trp Pro Thr Ala						
	145			150		155
Asp Gly Arg Leu Val Glu Tyr Asp Ile Asp Glu Val Val Tyr Asp Glu						
	165			170		175
Asp Ser Pro Tyr Gln Asn Ile Lys Ile Leu His Ser Lys Gln Phe Gly						
	180			185		190
Asn Ile Leu Ile Leu Ser Gly Asp Val Asn Leu Ala Glu Ser Asp Leu						
	195			200		205
Ala Tyr Thr Arg Ala Ile Met Gly Ser Gly Lys Glu Asp Tyr Thr Gly						
	210			215		220
Lys Asp Val Leu Ile Leu Gly Gly Gly Asp Gly Gly Ile Leu Cys Glu						
	225			230		235
Ile Val Lys Leu Lys Pro Lys Met Val Thr Met Val Glu Ile Asp Gln						
	245			250		255
Met Val Ile Asp Gly Cys Lys Lys Tyr Met Arg Lys Thr Cys Gly Asp						
	260			265		270
Val Leu Asp Asn Leu Lys Gly Asp Cys Tyr Gln Val Leu Ile Glu Asp						
	275			280		285
Cys Ile Pro Val Leu Lys Arg Tyr Ala Lys Glu Gly Arg Glu Phe Asp						
	290			295		300
Tyr Val Ile Asn Asp Leu Thr Ala Val Pro Ile Ser Thr Ser Pro Glu						
	305			310		315
Glu Asp Ser Thr Trp Glu Phe Leu Arg Leu Ile Leu Asp Leu Ser Met						
	325			330		335
Lys Val Leu Lys Gln Asp Gly Lys Tyr Phe Thr Gln Gly Asn Cys Val						

340						345					350				
Asn	Leu	Thr	Glu	Ala	Leu	Ser	Leu	Tyr	Glu	Glu	Gln	Leu	Gly	Arg	Leu
355						360					365				
Tyr	Cys	Pro	Val	Glu	Phe	Ser	Lys	Glu	Ile	Val	Cys	Val	Pro	Ser	Tyr
370						375					380				
Leu	Glu	Leu	Trp	Val	Phe	Tyr	Thr	Val	Trp	Lys	Lys	Ala	Lys	Pro	
385						390					395				

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<210> 1386
<211> 287
<212> PRT
<213> Homo sapiens
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<400> 1386
Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His
 1             5             10             15
Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu
          20             25             30
Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala
          35             40             45
Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu
          50             55             60
Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp
 65             70             75             80
Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr
          85             90             95
Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly
          100             105             110
Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu
          115             120             125
Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala
          130             135             140
Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys
 145             150             155             160
Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg
          165             170             175

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1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly  
                     180                    185                    190  
 Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg  
                     195                    200                    205  
 Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg  
                     210                    215                    220  
 Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met  
                     225                    230                    235                    240  
 Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly  
                     245                    250                    255  
 Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn  
                     260                    265                    270  
 Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln  
                     275                    280                    285

&lt;210&gt; 1387

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro  
     1                    5                    10                    15  
 Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp  
                     20                    25                    30  
 Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp  
                     35                    40                    45  
 Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu  
                     50                    55                    60  
 Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu  
                     65                    70                    75                    80  
 Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile  
                     85                    90                    95  
 Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr  
                     100                    105                    110

1450

Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile Leu Asp Gly  
 115 120 125

Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp Ile Arg Ile  
 130 135 140

Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly Ile Tyr His  
 145 150 155 160

Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met Arg Leu Phe  
 165 170 175

Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala Asp His Phe  
 180 185 190

Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr Ala  
 195 200 205

<210> 1388

<211> 394

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1388

Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg  
 1 5 10 15

Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His  
 20 25 30

Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg  
 35 40 45

Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser  
 50 55 60

Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu  
 65 70 75 80

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly  
 85 90 95

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp  
 100 105 110

1451

Asp Val Gln Leu Ser Lys Thr Leu Glu Leu Arg Val Ala Tyr Leu Asp  
 115 120 125

Pro Leu Glu Leu Ser Glu Gly Lys Val Leu Ser Leu Pro Leu Asn Ser  
 130 135 140

Ser Ala Val Val Asn Cys Ser Val His Gly Leu Pro Thr Pro Ala Leu  
 145 150 155 160

Arg Trp Thr Lys Asp Ser Thr Pro Leu Gly Asp Gly Pro Met Leu Ser  
 165 170 175

Leu Ser Ser Ile Thr Phe Asp Ser Asn Gly Thr Tyr Val Cys Glu Ala  
 180 185 190

Ser Leu Pro Thr Val Pro Val Leu Ser Arg Thr Gln Asn Phe Thr Leu  
 195 200 205

Leu Val Gln Gly Ser Pro Glu Leu Lys Thr Ala Glu Ile Glu Pro Lys  
 210 215 220

Ala Asp Gly Ser Trp Arg Glu Gly Asp Glu Val Thr Leu Ile Cys Ser  
 225 230 235 240

Ala Arg Gly His Pro Asp Pro Lys Leu Ser Trp Ser Gln Leu Gly Gly  
 245 250 255

Ser Pro Ala Glu Pro Ile Pro Gly Arg Gln Gly Trp Val Ser Ser Ser  
 260 265 270

Leu Thr Leu Lys Val Thr Ser Ala Leu Ser Arg Asp Gly Ile Ser Cys  
 275 280 285

Glu Ala Ser Asn Pro His Gly Asn Lys Arg His Val Phe His Phe Gly  
 290 295 300

Thr Val Ser Pro Gln Thr Ser Gln Ala Gly Val Ala Val Met Ala Val  
 305 310 315 320

Ala Val Ser Val Gly Leu Leu Leu Leu Val Val Ala Val Phe Tyr Cys  
 325 330 335

Val Arg Arg Lys Gly Gly Pro Cys Cys Arg Gln Arg Arg Glu Lys Gly  
 340 345 350

Ala Pro Pro Pro Gly Glu Pro Gly Leu Ser His Ser Gly Ser Glu Gln  
 355 360 365

Pro Glu Gln Thr Gly Leu Leu Met Gly Gly Ala Ser Gly Gly Ala Arg  
 370 375 380

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys  
385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa  
1 5 10 15

Leu Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp  
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu  
35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln  
50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro  
65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His  
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile  
100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu  
115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu  
130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe  
145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu  
165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

1453

	180		185		190
Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr					
195		200		205	
His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile					
210		215		220	
Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu					
225		230		235	240
Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu					
	245		250		255
Leu Glu Glu Val Ile Lys Asp Ile					
260					

&lt;210&gt; 1390

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1390

Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly					
1	5	10	15		
Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala					
20	25	30			
Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe					
35	40	45			
Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro					
50	55	60			
Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn					
65	70	75	80		
Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val					
85	90	95			
Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile					
100	105	110			
Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg					
115	120	125			
Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg					
130	135	140			

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro  
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu  
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala  
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly  
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro  
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu  
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro  
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile  
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys  
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala  
 115 120 125

Asn Asn Glu Ile Lys  
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

&lt;400&gt; 1392

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Asn Thr Val Leu Lys Lys Met Asp Glu Glu Pro Glu Arg Thr Lys Arg
 1             5             10             15

Trp Glu Gly Gly Tyr Glu Arg Thr Trp Glu Ile Leu Lys Glu Asp Glu
      20             25             30

Ser Gly Ser Leu Lys Ala Thr Ile Glu Asp Ile Leu Phe Lys Ala Lys
      35             40             45

Arg Lys Arg Val Phe Glu His His Gly Gln Val Arg Leu Gly Met Met
      50             55             60

Arg His Leu Tyr Val Val Val Asp Gly Ser Arg Thr Met Glu Asp Gln
      65             70             75             80

Asp Leu Lys Pro Asn Arg Leu Thr Cys Thr Leu Lys Leu Leu Glu Tyr
      85             90             95

Phe Val Glu Glu Tyr Phe Asp Gln Asn Pro Ile Ser Gln Ile Gly Ile
      100            105            110

Ile Val Thr Lys Ser Lys Arg Ala Glu Lys Leu Thr Glu Leu Ser Gly
      115            120            125

Asn Pro Arg Lys His Ile Thr Ser Leu Lys Lys Ala Val Asp Met Thr
      130            135            140

Cys His Gly Glu Pro Ser Leu Tyr Asn Ser Leu Ser Ile Ala Met Gln
      145            150            155            160

Thr Leu Lys His Met Pro Gly His Thr Ser Arg Glu Val Leu Ile Ile
      165            170            175

Phe Ser Ser Leu Thr Thr Cys Asp Pro Ser Asn Ile Tyr Asp Leu Ile
      180            185            190

Lys Thr Leu Lys Ala Ala Lys Ile Arg Val Ser Val Ile Gly Leu Ser
      195            200            205

Ala Glu Val Arg Val Cys Thr Val Leu Ala Arg Glu Thr Gly Gly Thr
      210            215            220

Tyr His Val Ile Leu Asp Glu Ser His Tyr Lys Glu Leu Leu Thr His
      225            230            235            240

His Val Ser Pro Pro Pro Ala Ser Ser Ser Ser Glu Cys Ser Leu Ile
      245            250            255

Arg Met Gly Phe Pro Gln His Thr Ile Ala Ser Leu Ser Asp Gln Asp

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1456

260	265	270
Ala Lys Pro Ser Phe Ser Met	Ala His Leu Asp Gly Asn Thr Glu Pro	
275	280	285
Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr		
290	295	300
Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser		
305	310	315
Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala		
325	330	335
Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr		
340	345	350
Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val		
355	360	365
Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser		
370	375	380
Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly		
385	390	395
Val		400

&lt;210&gt; 1393

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1393

Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser
1 5 10 15
Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala
20 25 30
Val Gly Thr Met Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser
35 40 45
Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg
50 55 60
Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu
65 70 75 80



1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr  
                     85                    90                    95  
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu  
                     100                    105                    110  
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met  
                     115                    120                    125  
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr  
                     130                    135                    140  
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met  
 145                    150                    155                    160  
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr  
                     165                    170                    175  
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu  
                     180                    185                    190  
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu  
                     195                    200                    205  
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys  
                     210                    215                    220  
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg  
 225                    230                    235                    240  
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala  
                     245                    250                    255  
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu  
                     260                    265                    270  
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu  
                     275                    280                    285  
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys  
                     290                    295                    300  
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser  
 305                    310                    315

&lt;210&gt; 1394

&lt;211&gt; 1285

&lt;212&gt; PRT

1458

&lt;213&gt; Homo sapiens

&lt;400&gt; 1394

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Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val
 1           5           10           15

Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val
          20           25           30

Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
 35           40           45

Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu
 50           55           60

Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys
 65           70           75           80

Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala
          85           90           95

Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr
          100           105           110

Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu
          115           120           125

Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val
          130           135           140

Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys
          145           150           155           160

Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe
          165           170           175

Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn
          180           185           190

Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala
          195           200           205

Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn
          210           215           220

Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser
          225           230           235           240

Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His
          245           250           255

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1459

His Thr Ala Tyr Leu Val Phe Ser Pro Ser Lys Ser Phe Val His Leu  
 260 265 270

Glu Pro Met Ser His Glu Leu Pro Cys Gly His Thr Gln Thr Val Gln  
 275 280 285

Ala His Tyr Ile Leu Asn Gly Gly Thr Leu Leu Gly Leu Lys Lys Leu  
 290 295 300

Ser Phe Tyr Tyr Leu Ile Met Ala Lys Gly Gly Ile Val Arg Thr Gly  
 305 310 315 320

Thr His Gly Leu Leu Val Lys Gln Glu Asp Met Lys Gly His Phe Ser  
 325 330 335

Ile Ser Ile Pro Val Lys Ser Asp Ile Ala Pro Val Ala Arg Leu Leu  
 340 345 350

Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp Ser Ala Lys  
 355 360 365

Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu Ser Phe Ser  
 370 375 380

Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg Val Thr Ala  
 385 390 395 400

Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln Ser Val Leu  
 405 410 415

Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val Tyr Asn Leu  
 420 425 430

Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu Asn Asp Gln  
 435 440 445

Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile Asn Gly Ile  
 450 455 460

Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met Tyr Ser Phe  
 465 470 475 480

Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys Ile Arg Lys  
 485 490 495

Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His Gly Pro Glu  
 500 505 510

Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly Arg Gly His  
 515 520 525

1460

Ala	Arg	Leu	Val	His	Val	Glu	Glu	Pro	His	Thr	Glu	Thr	Val	Arg	Lys
530						535					540				
Tyr	Phe	Pro	Glu	Thr	Trp	Ile	Trp	Asp	Leu	Val	Val	Val	Asn	Ser	Ala
545					550				555						560
Gly	Val	Ala	Glu	Val	Gly	Val	Thr	Val	Pro	Asp	Thr	Ile	Thr	Glu	Trp
			565						570					575	
Lys	Ala	Gly	Ala	Phe	Cys	Leu	Ser	Glu	Asp	Ala	Gly	Leu	Gly	Ile	Ser
			580					585					590		
Ser	Thr	Ala	Ser	Leu	Arg	Ala	Phe	Gln	Pro	Phe	Phe	Val	Glu	Leu	Thr
		595					600					605			
Met	Pro	Tyr	Ser	Val	Ile	Arg	Gly	Glu	Ala	Phe	Thr	Leu	Lys	Ala	Thr
	610					615					620				
Val	Leu	Asn	Tyr	Leu	Pro	Lys	Cys	Ile	Arg	Val	Ser	Val	Gln	Leu	Glu
625					630					635					640
Ala	Ser	Pro	Ala	Phe	Leu	Ala	Val	Pro	Val	Glu	Lys	Glu	Gln	Ala	Pro
				645					650					655	
His	Cys	Ile	Cys	Ala	Asn	Gly	Arg	Gln	Thr	Val	Ser	Trp	Ala	Val	Thr
			660					665					670		
Pro	Lys	Ser	Leu	Gly	Asn	Val	Asn	Phe	Thr	Val	Ser	Ala	Glu	Ala	Leu
		675					680					685			
Glu	Ser	Gln	Glu	Leu	Cys	Gly	Thr	Glu	Val	Pro	Ser	Val	Pro	Glu	His
	690					695					700				
Gly	Arg	Lys	Asp	Thr	Val	Ile	Lys	Pro	Leu	Leu	Val	Glu	Pro	Glu	Gly
705					710					715					720
Leu	Glu	Lys	Glu	Thr	Thr	Phe	Asn	Ser	Leu	Leu	Cys	Pro	Ser	Gly	Gly
				725					730					735	
Glu	Val	Ser	Glu	Glu	Leu	Ser	Leu	Lys	Leu	Pro	Pro	Asn	Val	Val	Glu
			740					745					750		
Glu	Ser	Ala	Arg	Ala	Ser	Val	Ser	Val	Leu	Gly	Asp	Ile	Leu	Gly	Ser
		755					760					765			
Ala	Met	Gln	Asn	Thr	Gln	Asn	Leu	Leu	Gln	Met	Pro	Tyr	Gly	Cys	Gly
	770					775					780				
Glu	Gln	Asn	Met	Val	Leu	Phe	Ala	Pro	Asn	Ile	Tyr	Val	Leu	Asp	Tyr
785					790					795					800

1461

Leu	Asn	Glu	Thr	Gln	Gln	Leu	Thr	Pro	Glu	Ile	Lys	Ser	Lys	Ala	Ile	805	810	815	
Gly	Tyr	Leu	Asn	Thr	Gly	Tyr	Gln	Arg	Gln	Leu	Asn	Tyr	Lys	His	Tyr	820	825	830	
Asp	Gly	Ser	Tyr	Ser	Thr	Phe	Gly	Glu	Arg	Tyr	Gly	Arg	Asn	Gln	Gly	835	840	845	
Asn	Thr	Trp	Leu	Thr	Ala	Phe	Val	Leu	Lys	Thr	Phe	Ala	Gln	Ala	Arg	850	855	860	
Ala	Tyr	Ile	Phe	Ile	Asp	Glu	Ala	His	Ile	Thr	Gln	Ala	Leu	Ile	Trp	865	870	875	880
Leu	Ser	Gln	Arg	Gln	Lys	Asp	Asn	Gly	Cys	Phe	Arg	Ser	Ser	Gly	Ser	885	890	895	
Leu	Leu	Asn	Asn	Ala	Ile	Lys	Gly	Gly	Val	Glu	Asp	Glu	Val	Thr	Leu	900	905	910	
Ser	Ala	Tyr	Ile	Thr	Ile	Ala	Leu	Leu	Glu	Ile	Pro	Leu	Thr	Val	Thr	915	920	925	
His	Pro	Val	Val	Arg	Asn	Ala	Leu	Phe	Cys	Leu	Glu	Ser	Ala	Trp	Lys	930	935	940	
Thr	Ala	Gln	Glu	Gly	Asp	His	Gly	Ser	His	Val	Tyr	Thr	Lys	Ala	Leu	945	950	955	960
Leu	Ala	Tyr	Ala	Phe	Ala	Leu	Ala	Gly	Asn	Gln	Asp	Lys	Arg	Lys	Glu	965	970	975	
Val	Leu	Lys	Ser	Leu	Asn	Glu	Glu	Ala	Val	Lys	Lys	Asp	Asn	Ser	Val	980	985	990	
His	Trp	Glu	Arg	Pro	Gln	Lys	Pro	Lys	Ala	Pro	Val	Gly	His	Phe	Tyr	995	1000	1005	
Glu	Pro	Gln	Ala	Pro	Ser	Ala	Glu	Val	Glu	Met	Thr	Ser	Tyr	Val	Leu	1010	1015	1020	
Leu	Ala	Tyr	Leu	Thr	Ala	Gln	Pro	Ala	Pro	Thr	Ser	Glu	Asp	Leu	Thr	1025	1030	1035	1040
Ser	Ala	Thr	Asn	Ile	Val	Lys	Trp	Ile	Thr	Lys	Gln	Gln	Asn	Ala	Gln	1045	1050	1055	
Gly	Gly	Phe	Ser	Ser	Thr	Gln	Asp	Thr	Val	Val	Ala	Leu	His	Ala	Leu	1060	1065	1070	

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln  
1075 1080 1085

Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp  
1090 1095 1100

Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro  
1105 1110 1115 1120

Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln  
1125 1130 1135

Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe  
1140 1145 1150

Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala  
1155 1160 1165

His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg  
1170 1175 1180

Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe  
1185 1190 1195 1200

Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val  
1205 1210 1215

Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys  
1220 1225 1230

Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val  
1235 1240 1245

Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr  
1250 1255 1260

Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys  
1265 1270 1275 1280

Asp Leu Gly Asn Ala  
1285

&lt;210&gt; 1395

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

1	5	10	15
Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu			
20	25	30	
Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe			
35	40	45	
Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp			
50	55	60	
Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu			
65	70	75	

<210> 1396  
 <211> 920  
 <212> PRT  
 <213> Homo sapiens

<400> 1396
Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly
1 5 10 15
Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly
20 25 30
Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val
35 40 45
Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly
50 55 60
Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu
65 70 75 80
Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu
85 90 95
Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val
100 105 110
Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala
115 120 125
Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu
130 135 140
Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu
145 150 155 160

1464

Tyr	Pro	Leu	Leu	Gln	Asp	Pro	Ala	Tyr	Leu	Pro	Glu	Glu	Leu	Ser	Ala	165	170	175
Leu	His	Ser	Trp	Phe	Gln	Thr	Leu	Ser	Thr	Gln	Glu	Pro	Cys	Gln	Arg	180	185	190
Ala	Ala	Glu	Thr	Val	Leu	Lys	Gln	Gln	Gly	Val	Leu	Ala	Leu	Arg	Pro	195	200	205
Tyr	Leu	Gln	Lys	Gln	Pro	Gln	Pro	Ser	Pro	Ala	Glu	Gly	Arg	Ala	Val	210	215	220
Thr	Asn	Glu	Pro	Glu	Glu	Glu	Leu	Ala	Thr	Leu	Ser	Glu	Glu	Glu		225	230	235
Ile	Ala	Met	Ala	Val	Thr	Ala	Trp	Glu	Lys	Gly	Leu	Glu	Ser	Leu	Pro	245	250	255
Pro	Leu	Arg	Pro	Gln	Gln	Asn	Pro	Val	Leu	Pro	Val	Ala	Gly	Glu	Arg	260	265	270
Asn	Val	Leu	Ile	Thr	Ser	Ala	Leu	Pro	Tyr	Val	Asn	Asn	Val	Pro	His	275	280	285
Leu	Gly	Asn	Ile	Ile	Gly	Cys	Val	Leu	Ser	Ala	Asp	Val	Phe	Ala	Arg	290	295	300
Tyr	Ser	Arg	Leu	Arg	Gln	Trp	Asn	Thr	Leu	Tyr	Leu	Cys	Gly	Thr	Asp	305	310	315
Glu	Tyr	Gly	Thr	Ala	Thr	Glu	Thr	Lys	Ala	Leu	Glu	Glu	Gly	Leu	Thr	325	330	335
Pro	Gln	Glu	Ile	Cys	Asp	Lys	Tyr	His	Ile	Ile	His	Ala	Asp	Ile	Tyr	340	345	350
Arg	Trp	Phe	Asn	Ile	Ser	Phe	Asp	Ile	Phe	Gly	Arg	Thr	Thr	Thr	Pro	355	360	365
Gln	Gln	Thr	Lys	Ile	Thr	Gln	Asp	Ile	Phe	Gln	Gln	Leu	Leu	Lys	Arg	370	375	380
Gly	Phe	Val	Leu	Gln	Asp	Thr	Val	Glu	Gln	Leu	Arg	Cys	Glu	His	Cys	385	390	395
Ala	Arg	Phe	Leu	Ala	Asp	Arg	Phe	Val	Glu	Gly	Val	Cys	Pro	Phe	Cys	405	410	415
Gly	Tyr	Glu	Glu	Ala	Arg	Gly	Asp	Gln	Cys	Asp	Lys	Cys	Gly	Lys	Leu	420	425	430



1465

Ile Asn Ala Val Glu Leu Lys Lys Pro Gln Cys Lys Val Cys Arg Ser  
 435 440 445

Cys Pro Val Val Gln Ser Ser Gln His Leu Phe Leu Asp Leu Pro Lys  
 450 455 460

Leu Glu Lys Arg Leu Glu Glu Trp Leu Gly Arg Thr Leu Pro Gly Ser  
 465 470 475 480

Asp Trp Thr Pro Asn Ala Gln Phe Ile Thr Arg Ser Trp Leu Arg Asp  
 485 490 495

Gly Leu Lys Pro Arg Cys Ile Thr Arg Asp Leu Lys Trp Gly Thr Pro  
 500 505 510

Val Pro Leu Glu Gly Phe Glu Asp Lys Val Phe Tyr Val Trp Phe Asp  
 515 520 525

Ala Thr Ile Gly Tyr Leu Ser Ile Thr Ala Asn Tyr Thr Asp Gln Trp  
 530 535 540

Glu Arg Trp Trp Lys Asn Pro Glu Gln Val Asp Leu Tyr Gln Phe Met  
 545 550 555 560

Ala Lys Asp Asn Val Pro Phe His Ser Leu Val Phe Pro Cys Ser Ala  
 565 570 575

Leu Gly Ala Glu Asp Asn Tyr Thr Leu Val Ser His Leu Ile Ala Thr  
 580 585 590

Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser Arg Gly Val  
 595 600 605

Gly Val Phe Gly Asp Met Ala Gln Asp Thr Gly Ile Pro Ala Asp Ile  
 610 615 620

Trp Arg Phe Tyr Leu Leu Tyr Ile Arg Pro Glu Gly Gln Asp Ser Ala  
 625 630 635 640

Phe Ser Trp Thr Asp Leu Leu Leu Lys Asn Asn Ser Glu Leu Leu Asn  
 645 650 655

Asn Leu Gly Asn Phe Ile Asn Arg Ala Gly Met Phe Val Ser Lys Phe  
 660 665 670

Phe Gly Gly Tyr Val Pro Glu Met Val Leu Thr Pro Asp Asp Gln Arg  
 675 680 685

Leu Leu Ala His Val Thr Leu Glu Leu Gln His Tyr His Gln Leu Leu  
 690 695 700

1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser  
705 710 715 720

Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile  
725 730 735

Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu  
740 745 750

Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met  
755 760 765

Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro  
770 775 780

Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly  
785 790 795 800

His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp  
805 810 815

Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr  
820 825 830

Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln  
835 840 845

Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val  
850 855 860

Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu  
865 870 875 880

Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly  
885 890 895

Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp  
900 905 910

Leu Ile Glu Ser His Phe Asn Arg  
915 920

&lt;210&gt; 1397

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1467

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1397

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Lys Met Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln
 1             5             10             15

Asp Arg Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val
      20             25             30

Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val
      35             40             45

Ala Ala Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp
      50             55             60

Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser Glu Ile Pro Leu Pro Pro
      65             70             75             80

Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys
      85             90             95

Ile Tyr Gly His Leu Asp Val Gln Pro Ala Ala Leu Glu Asp Gly Trp
      100            105            110

Asp Ser Glu Pro Phe Thr Leu Val Glu Arg Asp Gly Lys Leu Xaa Gly
      115            120            125

Arg Gly Ser Thr Asp Asp Lys Gly Pro Val Ala Gly Trp Ile Asn Ala
      130            135            140

Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu Ile Pro Val Asn Val Arg
      145            150            155            160

Phe Cys Leu Glu Gly Met Glu Glu Ser Gly Ser Glu Gly Leu Asp Glu
      165            170            175

Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe Lys Asp Val Asp Tyr Val
      180            185            190

Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys Lys Lys Pro Cys Ile Thr
      195            200            205

Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe Ile Glu Val Glu Cys Ser
      210            215            220

Asn Lys Asp Leu His Ser Gly Val Tyr Gly Gly Ser Val His Glu Ala
      225            230            235            240

Met Thr Asp Leu Ile Leu Leu Met Gly Ser Leu Val Asp Lys Arg Gly

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1468

	245		250		255
Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala Val Ala Ala Val Thr Glu					
	260		265		270
Glu Glu His Lys Leu Tyr Asp Asp Ile Asp Phe Asp Ile Glu Glu Phe					
	275		280		285
Ala Lys Asp Val Gly Ala Gln Ile Leu Leu His Ser His Lys Lys Asp					
	290		295		300
Ile Leu Met His Arg Trp Arg Tyr Pro Ser Leu Ser Leu His Gly Ile					
305		310		315	320
Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys Thr Val Ile Pro Arg Lys					
	325		330		335
Val Val Gly Lys Phe Ser Ile Arg Leu Val Pro Asn Met Thr Pro Glu					
	340		345		350
Val Val Gly Glu Gln Val Thr Ser Tyr Leu Thr Lys Lys Phe Ala Glu					
	355		360		365
Leu Arg Ser Pro Asn Glu Phe Lys Val Tyr Met Gly His Gly Gly Lys					
	370		375		380
Pro Trp Val Ser Asp Phe Ser His Pro His Tyr Leu Ala Gly Arg Arg					
385		390		395	400
Ala Met Lys Thr Val Phe Gly Val Glu Pro Asp Leu Thr Arg Glu Gly					
	405		410		415
Gly Ser Ile Pro Val Thr Leu Thr Phe Gln Glu Ala Thr Gly Lys Asn					
	420		425		430
Val Met Leu Leu Pro Val Gly Ser Ala Asp Asp Gly Ala His Ser Gln					
	435		440		445
Asn Glu Lys Leu Asn Arg Tyr Asn Tyr Ile Glu Gly Thr Lys Met Leu					
	450		455		460
Ala Ala Tyr Leu Tyr Glu Val Ser Gln Leu Lys Asp					
465		470		475	

&lt;210&gt; 1398

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1469

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val  
 1 5 10 15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val  
 20 25 30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala  
 35 40 45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser  
 50 55 60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp  
 65 70 75 80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp  
 85 90 95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu  
 100 105 110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg  
 115 120 125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu  
 130 135 140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln  
 145 150 155 160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr  
 165 170 175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu  
 180 185

&lt;210&gt; 1399

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1470

1	5	10	15
Leu Ala Pro Ala Asn Ala Val Ala Gly Leu Leu Pro Gly Gly Gly Leu	20	25	30
Leu Pro Thr Pro Asn Pro Leu Thr Gln Ile Gly Ala Val Pro Leu Ala	35	40	45
Ala Leu Gly Ala Pro Thr Leu Asp Pro Ala Leu Ala Ala Leu Gly Leu	50	55	60
Pro Gly Ala Asn Leu Asn Ser Gln Ser Leu Ala Ala Asp Gln Leu Leu	65	70	75
Lys Leu Met Ser Thr Val Asp Pro Lys Leu Asn His Val Ala Ala Gly	85	90	95
Leu Val Ser Pro Ser Leu Lys Ser Asp Thr Ser Ser Lys Glu Ile Glu	100	105	110
Glu Ala Met Lys Arg Val Arg Glu Ala Gln Ser Leu Ile Ser Ala Ala	115	120	125
Ile Glu Pro Asp Lys Lys Glu Glu Lys Arg Arg His Ser Arg Ser Arg	130	135	140
Ser Arg Ser Arg Arg Arg Arg Thr Pro Ser Ser Ser Arg His Arg Arg	145	150	155
Ser Arg Ser Arg Ser Arg Arg Arg Ser His Ser Lys Ser Arg Ser Arg	165	170	175
Arg Arg Ser Lys Ser Pro Arg Arg Arg Arg Ser His Ser Arg Glu Arg	180	185	190
Gly Arg Arg Ser Arg Ser Thr Ser Lys Thr Arg Asp Lys Lys Lys Glu	195	200	205
Asp Lys Glu Lys Lys Arg Ser Lys Thr Pro Pro Lys Ser Tyr Ser Thr	210	215	220
Ala Arg Arg Ser Arg Ser Ala Ser Arg Glu Arg Arg Arg Arg Ser	225	230	235
Arg Ser Gly Thr Arg Ser Pro Lys Lys Pro Arg Ser Pro Lys Arg Lys	245	250	255
Leu Ser Arg Ser Pro Ser Pro Arg Arg His Lys Lys Glu Lys Lys Lys	260	265	270
Asp Lys Asp Lys Glu Arg Ser Arg Asp Glu Arg Glu Arg Ser Thr Ser			

1471

275	280	285
Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser		
290	295	300
Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu		
305	310	315 320
Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro		
	325	330 335
Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly		
	340	345 350
Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His		
	355	360 365
Glu Glu Asp Met Asp Met Ser Asp		
370	375	

&lt;210&gt; 1400

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1400

Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu		
1	5	10 15
Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr		
	20	25 30
Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala		
	35	40 45
Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg		
	50	55 60
Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu		
	65	70 75 80
Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu		
	85	90 95

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val  
100 105 110

&lt;210&gt; 1401

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1401

Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln  
1 5 10 15

Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val  
20 25 30

Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln  
35 40 45

Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys  
50 55 60

Lys Glu Glu Pro Lys  
65

&lt;210&gt; 1402

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



1473

&lt;400&gt; 1402

Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln  
 1 5 10 15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu  
 20 25 30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser  
 35 40 45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala  
 50 55 60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn  
 65 70 75 80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr  
 85 90 95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr  
 100 105 110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val  
 115 120 125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg  
 130 135 140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val  
 145 150 155 160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu  
 165 170 175

Leu

&lt;210&gt; 1403

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1403

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu  
 1 5 10 15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu  
 20 25 30

Thr	Cys	Arg	Asn	Gly	Val	Pro	Phe	Met	Leu	Tyr	Leu	Asp	Lys	Gly	Asn
		35					40					45			
Gln	Lys	Trp	Asn	Gln	Cys	Arg	Gln	Asn	Leu	Gly	Phe	Ala	Ala	Ser	Ile
	50					55					60				
Asn	Gln	Ser	Met	Thr	Asn	Arg	Gly	Ser	Leu	Lys	Cys	Lys	Gly	Thr	Asn
65					70					75					80

```
<210> 1404
<211> 251
<212> PRT
<213> Homo sapiens
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```
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<400> 1404
Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg
 1          5          10          15
Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser
      20          25          30
Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp
      35          40          45
Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys
      50          55          60
Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg
 65          70          75          80
Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn
      85          90          95
Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala Ser Lys Ile
      100          105          110

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1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe  
 115 120 125

Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg  
 130 135 140

Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile  
 145 150 155 160

Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro  
 165 170 175

Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly  
 180 185 190

Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu  
 195 200 205

Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu  
 210 215 220

Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe  
 225 230 235 240

Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala  
 245 250

&lt;210&gt; 1405

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val  
 1 5 10 15

Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys  
 20 25 30

Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu  
 35 40 45

Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr  
 50 55 60

Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His  
 65 70 75 80

Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

	85		90		95										
Gly	Ser	Phe	Leu	Ser	Phe	Cys	Asn	Leu	Arg	His	Met	Phe	Gln	Arg	Thr
			100					105					110		
Gly	Ile	Phe	Val	Trp	Ser	Ser	Asp	Leu	Gly	Asp	His	Ser	His	Asn	
			115					120					125		

&lt;210&gt; 1406

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (190)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (192)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (194)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1477

&lt;221&gt; SITE

&lt;222&gt; (217)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (218)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1406

Ala Glu Arg Pro Leu Gln Val Pro Arg Ser Ala Gly Glu Ala Ala Pro  
 1 5 10 15

His Ser Arg Arg Pro Pro Gly Leu Leu Pro His Ala Pro Arg Ala Ala  
 20 25 30

Ser Ala Gln Leu Glu Glu Arg Arg Arg Asp Pro His Pro Gly Met Thr  
 35 40 45

Leu Gln Glu Gly Asp Cys Arg Gly Ser Gln Thr Val Ser Leu Thr Met  
 50 55 60

Gly Thr Ala Asp Ser Asp Glu Met Ala Pro Glu Ala Pro Gln His Thr  
 65 70 75 80

His Ile Asp Val His Ile His Gln Glu Xaa Ala Leu Ala Lys Leu Leu  
 85 90 95

Leu Thr Cys Cys Ser Ala Leu Arg Pro Arg Ala Thr Gln Ala Arg Xaa  
 100 105 110

Ser Ser Arg Leu Leu Xaa Ala Ser Trp Val Met Gln Ile Val Leu Gly  
 115 120 125

Ile Leu Ser Ala Val Leu Gly Gly Phe Phe Tyr Ile Arg Asp Tyr Thr  
 130 135 140

Leu Leu Val Thr Ser Gly Ala Ala Ser Gly Gln Gly Leu Trp Leu Cys  
 145 150 155 160

Cys Trp Ser Cys Cys Leu His Leu Xaa Glu Thr Gly Trp Tyr Ile Leu  
 165 170 175

Gly Pro Ala Glu Asp Ser Ala Asn Ala Gly Lys Leu Ser Xaa Gln Xaa  
 180 185 190

Ser Xaa Ala Ser Asn Phe Gly Asn Glu Glu Phe Arg Tyr Gly Leu Leu  
 195 200 205

Leu Ile Thr Thr Ser Gly Trp Pro Xaa Xaa Gln Val Arg Val Asp Trp  
 210 215 220

1478

Asn Thr Ser Ser Pro Gln  
225 230

&lt;210&gt; 1407

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1407

Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser  
1 5 10 15

Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn  
20 25 30

Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val  
35 40 45

Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr  
50 55 60

Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr  
65 70 75

&lt;210&gt; 1408

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1408

Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu  
1 5 10 15

Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala  
20 25 30

Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Gly  
35 40 45

Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys  
50 55 60

Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys  
65 70 75 80

Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

85					90					95						
Lys	Gln	Asp	Glu	Phe	Lys	Arg	Leu	Ala	Glu	Asn	Ser	Ala	Ser	Ser	Asp	
100					105					110						
Asp	Leu	Leu	Val	Ala	Glu	Val	Gly	Ile	Ser	Asp	Tyr	Gly	Asp	Lys	Leu	
115					120					125						
Asn	Met	Glu	Leu	Ser	Glu	Lys	Tyr	Lys	Leu	Asp	Lys	Glu	Ser	Tyr	Pro	
130					135					140						
Val	Phe	Tyr	Leu	Phe	Arg	Asp	Gly	Asp	Phe	Glu	Asn	Pro	Val	Pro	Tyr	
145					150					155					160	
Thr	Gly	Ala	Val	Lys	Val	Gly	Ala	Ile	Gln	Arg	Trp	Leu	Lys	Gly	Gln	
165					170					175						
Gly	Val	Tyr	Leu	Gly	Met	Pro	Gly	Cys	Leu	Pro	Val	Tyr	Asp	Ala	Leu	
180					185					190						
Ala	Gly	Glu	Phe	Ile	Arg	Ala	Ser	Gly	Val	Glu	Ala	Arg	Gln	Ala	Leu	
195					200					205						
Leu	Lys	Gln	Gly	Gln	Asp	Asn	Leu	Ser	Ser	Val	Lys	Glu	Thr	Gln	Lys	
210					215					220						
Lys	Trp	Ala	Glu	Gln	Tyr	Leu	Lys	Ile	Met	Gly	Lys	Ile	Leu	Asp	Gln	
225					230					235					240	
Gly	Glu	Asp	Phe	Pro	Ala	Ser	Glu	Met	Thr	Arg	Ile	Ala	Arg	Leu	Ile	
245					250					255						
Glu	Lys	Asn	Lys	Met	Ser	Asp	Gly	Lys	Lys	Glu	Glu	Leu	Gln	Lys	Ser	
260					265					270						
Leu	Asn	Ile	Leu	Thr	Ala	Phe	Gln	Lys	Lys	Gly	Ala	Glu	Lys	Glu	Glu	
275					280					285						

Leu

&lt;210&gt; 1409

&lt;211&gt; 488

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly

1

5

10

15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn  
 20 25 30

Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser  
 35 40 45

Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser  
 50 55 60

Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val  
 65 70 75 80

Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu  
 85 90 95

Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val  
 100 105 110

Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp  
 115 120 125

Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro  
 130 135 140

Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser  
 145 150 155 160

Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser  
 165 170 175

Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg  
 180 185 190

Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys  
 195 200 205

His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys  
 210 215 220

Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg  
 225 230 235 240

Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro  
 245 250 255

Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val  
 260 265 270

Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe  
 275 280 285



1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser  
 290 295 300  
 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala  
 305 310 315 320  
 Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu  
 325 330 335  
 Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala  
 340 345 350  
 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly  
 355 360 365  
 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val  
 370 375 380  
 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser  
 385 390 395 400  
 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro  
 405 410 415  
 Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn  
 420 425 430  
 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser  
 435 440 445  
 Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln  
 450 455 460  
 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys  
 465 470 475 480  
 Ala Ala Gln Lys Lys Leu Lys Lys  
 485

&lt;210&gt; 1410

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1482

&lt;400&gt; 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro  
 1 5 10 15  
 Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys  
 20 25 30  
 Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe  
 35 40 45  
 Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe  
 50 55 60

&lt;210&gt; 1411

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser  
 1 5 10 15  
 Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys  
 20 25 30  
 Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys  
 35 40 45  
 Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys  
 50 55 60  
 Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys  
 65 70 75 80  
 Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln  
 85 90 95  
 Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala  
 100 105 110  
 Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn  
 115 120 125

Gly

1483

&lt;210&gt; 1412

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1412

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu  
 1 5 10 15

Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly  
 20 25 30

Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp  
 35 40 45

Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro  
 50 55 60

His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser  
 65 70 75 80

Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp  
 85 90 95

Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu  
 100 105 110

Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg  
 115 120 125

Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu  
 130 135 140

Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro  
 145 150 155 160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu  
 165 170 175

Asp

&lt;210&gt; 1413

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1484

&lt;400&gt; 1413

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Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg
 1             5             10             15

Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn
          20             25             30

Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met
      35             40             45

Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp
 50             55             60

Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser
 65             70             75             80

Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala
          85             90             95

Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp
      100             105             110

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&lt;210&gt; 1414

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1414

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Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu
 1             5             10             15

Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu
          20             25             30

Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp
          35             40             45

Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys
      50             55             60

Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu
 65             70             75             80

Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr
          85             90             95

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1485

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr  
                   100                  105                  110  
 Gly Trp Arg Cys Arg Ala Arg Ala Ala Ala Ser Arg Arg Phe Pro Gly  
                   115                  120                  125  
 Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr  
                   130                  135                  140  
 Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln  
 145                  150                  155                  160  
 Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe  
                   165                  170                  175  
 Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe  
                   180                  185

&lt;210&gt; 1415

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1415

Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser  
   1                  5                  10                  15  
 Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys  
                   20                  25                  30  
 Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr  
                   35                  40                  45  
 Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr  
                   50                  55                  60  
 Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly  
                   65                  70                  75                  80

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His  
                     85                                    90                                    95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu  
                     100                                    105

<210> 1416

<211> 621

<212> PRT

<213> Homo sapiens

<400> 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu  
   1                                    5                                    10                                    15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu  
                     20                                    25                                    30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys  
                     35                                    40                                    45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly  
                     50                                    55                                    60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr  
   65                                    70                                    75                                    80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser  
                     85                                    90                                    95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys  
                     100                                    105                                    110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro  
                     115                                    120                                    125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser  
                     130                                    135                                    140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu  
  145                                    150                                    155                                    160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly  
                     165                                    170                                    175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys  
                     180                                    185                                    190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr  
 195 200 205

Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr  
 210 215 220

Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg  
 225 230 235 240

Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys  
 245 250 255

Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu  
 260 265 270

His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys  
 275 280 285

Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala  
 290 295 300

His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp  
 305 310 315 320

Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro  
 325 330 335

Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala  
 340 345 350

Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His  
 355 360 365

Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp  
 370 375 380

Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys  
 385 390 395 400

Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys  
 405 410 415

Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys  
 420 425 430

Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser  
 435 440 445

Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu  
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val  
 465 470 475 480

Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln  
 485 490 495

Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala  
 500 505 510

Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val  
 515 520 525

Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val  
 530 535 540

Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr  
 545 550 555 560

Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln  
 565 570 575

Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg  
 580 585 590

Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp  
 595 600 605

Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu  
 610 615 620

<210> 1417

<211> 340

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro  
 1 5 10 15



1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly  
                   20                                  25                                  30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg  
                   35                                  40                                  45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln  
                   50                                  55                                  60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro  
                   65                                  70                                  75                                  80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val  
                                   85                                  90                                  95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln  
                   100                                  105                                  110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly  
                   115                                  120                                  125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met  
                   130                                  135                                  140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu  
                   145                                  150                                  155                                  160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu  
                                   165                                  170                                  175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile  
                   180                                  185                                  190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala  
                   195                                  200                                  205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp  
                   210                                  215                                  220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys  
                   225                                  230                                  235                                  240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp  
                                   245                                  250                                  255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile  
                   260                                  265                                  270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr  
                   275                                  280                                  285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe  
 290 295 300  
 Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn  
 305 310 315 320  
 Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp  
 325 330 335  
 Val Glu Asp Tyr  
 340

<210> 1418  
 <211> 235  
 <212> PRT  
 <213> Homo sapiens

<400> 1418  
 Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro  
 1 5 10 15  
 Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser  
 20 25 30  
 Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu  
 35 40 45  
 Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Leu Ser Ala  
 50 55 60  
 Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser  
 65 70 75 80  
 Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu  
 85 90 95  
 Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu  
 100 105 110  
 Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile  
 115 120 125  
 Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro  
 130 135 140  
 Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala  
 145 150 155 160  
 Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

	165		170		175
Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn					
	180		185		190
Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys					
	195		200		205
Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly					
	210		215		220
Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala					
	225		230		235

<210> 1419  
 <211> 86  
 <212> PRT  
 <213> Homo sapiens

<400> 1419  
 Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala  
 1 5 10 15  
 Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg  
 20 25 30  
 Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly  
 35 40 45  
 Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr  
 50 55 60  
 Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro  
 65 70 75 80  
 His Ile Gln Ser Arg Ser  
 85

<210> 1420  
 <211> 351  
 <212> PRT  
 <213> Homo sapiens

<400> 1420  
 Thr Trp Cys Thr Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg  
 1 5 10 15

1492

Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro  
                   20                  25                  30

Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser  
           35                  40                  45

Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr  
       50                  55                  60

Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile  
   65                  70                  75                  80

Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala  
                   85                  90                  95

Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu  
           100                  105                  110

Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp  
       115                  120                  125

Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr  
       130                  135                  140

Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe  
   145                  150                  155                  160

Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met  
                   165                  170                  175

Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro  
           180                  185                  190

Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala  
       195                  200                  205

Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala  
       210                  215                  220

Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met  
   225                  230                  235                  240

Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val  
                   245                  250                  255

Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro  
       260                  265                  270

Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly  
       275                  280                  285

1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val  
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp  
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe  
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys  
 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu  
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val  
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn  
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr  
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly  
 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1494

Ala	Cys	Arg	Ser	Thr	Leu	Val	Asp	Pro	Lys	Asn	Ser	Ala	Gln	Glu	Arg	1	5	10	15
Arg	Ala	Leu	Gly	Pro	Leu	Pro	Pro	Cys	Ser	Phe	Ala	Leu	Gln	Leu	Gly	20	25	30	
Met	Ala	Gly	Tyr	Leu	Arg	Val	Val	Arg	Ser	Leu	Cys	Arg	Ala	Ser	Gly	35	40	45	
Ser	Arg	Pro	Ala	Trp	Ala	Pro	Ala	Ala	Leu	Thr	Ala	Pro	Thr	Ser	Gln	50	55	60	
Glu	Gln	Pro	Arg	Arg	His	Tyr	Ala	Asp	Lys	Arg	Ile	Lys	Val	Ala	Lys	65	70	75	80
Pro	Val	Val	Glu	Met	Asp	Gly	Asp	Glu	Met	Thr	Arg	Ile	Ile	Trp	Gln	85	90	95	
Phe	Ile	Lys	Glu	Lys	Leu	Ile	Leu	Pro	His	Val	Asp	Ile	Gln	Leu	Lys	100	105	110	
Tyr	Phe	Asp	Leu	Gly	Leu	Pro	Asn	Arg	Asp	Gln	Thr	Asp	Asp	Gln	Val	115	120	125	
Thr	Ile	Asp	Ser	Ala	Leu	Ala	Thr	Gln	Lys	Tyr	Ser	Val	Ala	Val	Lys	130	135	140	
Cys	Ala	Thr	Ile	Thr	Pro	Asp	Glu	Ala	Arg	Val	Glu	Glu	Phe	Lys	Leu	145	150	155	160
Lys	Lys	Met	Trp	Lys	Ser	Pro	Asn	Gly	Thr	Ile	Arg	Asn	Ile	Leu	Gly	165	170	175	
Gly	Thr	Val	Phe	Arg	Glu	Pro	Ile	Ile	Cys	Lys	Asn	Ile	Pro	Arg	Leu	180	185	190	
Val	Pro	Gly	Trp	Thr	Lys	Pro	Ile	Thr	Ile	Gly	Arg	His	Ala	His	Gly	195	200	205	
Asp	Gln	Tyr	Lys	Ala	Thr	Asp	Phe	Val	Ala	Asp	Arg	Ala	Gly	Thr	Phe	210	215	220	
Lys	Met	Val	Phe	Thr	Pro	Lys	Asp	Gly	Ser	Gly	Val	Lys	Glu	Trp	Glu	225	230	235	240
Val	Tyr	Asn	Phe	Pro	Ala	Gly	Gly	Val	Gly	Met	Gly	Met	Tyr	Asn	Thr	245	250	255	
Asp	Glu	Ser	Ile	Ser	Gly	Phe	Ala	His	Ser	Cys	Phe	Gln	Tyr	Ala	Ile	260	265	270	

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys  
           275                          280                          285  
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys  
           290                          295                          300  
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg  
 305                          310                          315                          320  
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe  
                           325                          330                          335  
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu  
                           340                          345                          350  
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys  
           355                          360                          365  
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr  
           370                          375                          380  
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro  
 385                          390                          395                          400  
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys  
                           405                          410                          415  
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys  
                           420                          425                          430  
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala  
           435                          440                          445  
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu  
           450                          455                          460  
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala  
 465                          470                          475                          480  
 Leu Gly Arg Gln

&lt;210&gt; 1423

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

**<222> (153)**

<400> 1423

Thr	Gln	Asn	Ala	Glu	Thr	Thr	Glu	Gly	Tyr	Gln	Pro	Pro	Pro	Val	Tyr
225					230					235					240



1497

&lt;210&gt; 1424

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (221)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1424

Arg	Val	Arg	Arg	Gln	Ser	Ser	Gly	Asn	Leu	Thr	Met	Ala	Trp	Thr	Pro
1				5					10					15	

Leu	Leu	Leu	Pro	Leu	Leu	Thr	Phe	Cys	Thr	Val	Ser	Glu	Ala	Ser	Tyr
			20					25					30		

Glu	Leu	Thr	Gln	Pro	Pro	Ser	Val	Ser	Val	Ser	Pro	Gly	Gln	Thr	Ala
		35					40					45			

Arg	Ile	Thr	Cys	Ser	Gly	Asp	Ala	Leu	Pro	Xaa	Lys	Tyr	Xaa	Tyr	Trp
	50					55					60				

Tyr	Gln	Gln	Lys	Ser	Gly	Gln	Ala	Pro	Val	Leu	Val	Ile	Tyr	Glu	Asp
65					70					75				80	

Thr	Arg	Arg	Pro	Ser	Ala	Ile	Pro	Glu	Arg	Phe	Ser	Ala	Ser	Ser	Ser
				85					90					95	

Gly	Thr	Met	Ala	Thr	Leu	Thr	Ile	Ser	Gly	Ala	Gln	Val	Glu	Asp	Glu
			100						105				110		

Ala	Asp	Tyr	Tyr	Cys	Tyr	Ser	Thr	Asp	Ser	Ser	Ser	Tyr	Tyr	Arg	Val
		115					120					125			

Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gln	Pro	Lys	Ala	Ala
	130					135					140				

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn  
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val  
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu  
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser  
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser  
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro  
225 230 235 240

Thr Glu Cys Ser

&lt;210&gt; 1425

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (159)

1499

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1425

Xaa Val Arg Val Gln Thr Arg Gly Ser Ala Asp Pro Ala Gln Leu Arg  
 1 5 10 15

Arg His Pro Gly Tyr Lys Arg Thr Ala Ser Ala Thr Leu Ser Asp Pro  
 20 25 30

Ala Ala Ala Ala Met Gln Pro Ser Ser Leu Leu Pro Leu Ala Leu Cys  
 35 40 45

Leu Leu Ala Ala Pro Ala Ser Ala Leu Val Arg Ile Pro Leu His Lys  
 50 55 60

Phe Thr Ser Ile Arg Arg Thr Met Ser Glu Val Gly Gly Ser Val Glu  
 65 70 75 80

Asp Leu Ile Ala Lys Gly Pro Val Ser Lys Tyr Ser Gln Ala Val Pro  
 85 90 95

Ala Val Thr Glu Gly Pro Ile Pro Glu Val Leu Lys Asn Tyr Met Asp  
 100 105 110

Ala Gln Xaa Tyr Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Cys Phe  
 115 120 125

Thr Val Val Phe Asp Thr Gly Xaa Xaa Asn Leu Trp Val Pro Ser Ile  
 130 135 140

His Cys Lys Leu Leu Asp Ile Ala Cys Trp Ile His His Lys Xaa Asn  
 145 150 155 160

Ser Asp Lys Ser Ser Asn Tyr Val Lys Asn Gly Asn Ser  
 165 170

&lt;210&gt; 1426

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1426

Ile Arg His Glu Ile Leu Trp Leu Leu Cys Ser His Arg Pro Ala Pro  
 1 5 10 15

Gly	Arg	Pro	Thr	His	Asn	Ala	His	Asn	Trp	Arg	Leu	Gly	Gln	Ala	
		20					25					30			
Pro	Ala	Xaa	Trp	Tyr	Asn	Asp	Thr	Tyr	Pro	Leu	Ser	Pro	Pro	Gln	Arg
		35					40					45			
Thr	Pro	Ala	Gly	Ile	Arg	Tyr	Arg	Ile	Ala	Val	Ile	Ala	Asp	Leu	Asp
	50					55					60				
Thr	Glu	Ser	Arg	Ala	Gln	Glu	Glu	Asn	Thr	Trp	Phe	Ser	Tyr	Leu	Lys
65					70					75					80
Lys	Gly	Tyr	Leu	Thr	Leu	Ser	Asp	Ser	Gly	Asp	Lys	Val	Ala	Val	Glu
				85					90					95	
Trp	Asp	Lys	Asp	His	Gly	Val	Leu	Glu	Ser	His	Leu	Ala	Glu	Lys	Gly
			100					105					110		
Arg	Gly	Met	Glu	Leu	Ser	Asp	Leu	Ile	Val	Phe	Asn	Gly	Lys	Leu	Tyr
		115					120					125			
Ser	Val	Asp	Asp	Arg	Thr	Gly	Val	Val	Tyr	Gln	Ile	Glu	Gly	Ser	Lys
	130					135					140				
Ala	Val	Pro	Trp	Val	Ile	Leu	Ser	Asp	Gly	Asp	Gly	Thr	Val	Glu	Lys
145					150					155					160
Gly	Phe	Lys	Ala	Glu	Trp	Leu	Ala	Val	Lys	Asp	Glu	Arg	Leu	Tyr	Val
				165					170					175	
Gly	Gly	Leu	Gly	Lys	Glu	Trp	Thr	Thr	Thr	Thr	Gly	Asp	Val	Val	Asn
			180					185					190		
Glu	Asn	Pro	Glu	Trp	Val	Lys	Val	Val	Gly	Tyr	Lys	Gly	Ser	Val	Asp
		195					200					205			
His	Glu	Asn	Trp	Val	Ser	Asn	Tyr	Asn	Ala	Leu	Arg	Ala	Ala	Ala	Gly
	210					215					220				
Ile	Gln	Pro	Pro	Gly	Tyr	Leu	Ile	His	Glu	Ser	Ala	Cys	Trp	Ser	Asp
225					230					235					240
Thr	Leu	Gln	Arg	Trp	Phe	Phe	Leu	Pro	Arg	Arg	Ala	Ser	Gln	Glu	Arg
				245					250					255	
Tyr	Ser	Glu	Lys	Asp	Asp	Glu	Arg	Lys	Gly	Ala	Asn	Leu	Leu	Leu	Ser
			260					265					270		
Ala	Ser	Pro	Asp	Phe	Gly	Asp	Ile	Ala	Val	Ser	His	Val	Gly	Ala	Val
		275					280					285			

1501

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp  
 290 295 300

Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val  
 305 310 315 320

Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro  
 325 330 335

Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile  
 340 345 350

<210> 1427

<211> 510

<212> PRT

<213> Homo sapiens

<400> 1427

Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala  
 1 5 10 15

Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu  
 20 25 30

Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser  
 35 40 45

Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg  
 50 55 60

Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg  
 65 70 75 80

Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val  
 85 90 95

Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser  
 100 105 110

Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu  
 115 120 125

Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg  
 130 135 140

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser  
 145 150 155 160

1502

Glu Phe Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile  
 165 170 175

Gly Gln Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly  
 180 185 190

Pro Val Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val  
 195 200 205

Pro Pro Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu  
 210 215 220

Tyr Gln Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn  
 225 230 235 240

Arg Phe Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu  
 245 250 255

Glu Val Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Val Val  
 260 265 270

Leu Ser Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg  
 275 280 285

Lys Arg Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly  
 290 295 300

Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Arg Glu Leu Met  
 305 310 315 320

Ser Ser Ile Val His Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly  
 325 330 335

Leu Asn Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro  
 340 345 350

His Ser Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val  
 355 360 365

Ser Asp Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser  
 370 375 380

Arg Ala Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His  
 385 390 395 400

Ile Leu Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val  
 405 410 415

Ala Ala Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr  
 420 425 430

1503

Ile Asp Thr Ser Arg Val Ser Leu Arg Ala Pro Gln Glu Phe Met Thr  
 435 440 445

Ser His Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro  
 450 455 460

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val  
 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile  
 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr  
 500 505 510

&lt;210&gt; 1428

&lt;211&gt; 316

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu  
 1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro  
 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Phe Glu Gly Ala Pro Gly  
 35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu  
 50 55 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro  
 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro  
 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala  
 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr  
 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile  
 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala

1504

145                      150                      155                      160  
 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu  
                                  165                      170                      175  
 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro  
                                  180                      185                      190  
 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp  
                                  195                      200                      205  
 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val  
                                  210                      215                      220  
 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly  
 225                                   230                                   235                                   240  
 Thr Tyr Leu Pro Gln Ser Tyr Leu Ile His Glu His Met Val Ile Thr  
                                  245                                   250                                   255  
 Asp Arg Ile Glu Asn Ile Asp His Leu Gly Phe Phe Ile Tyr Arg Leu  
                                  260                                   265                                   270  
 Cys His Asp Lys Glu Thr Tyr Lys Leu Gln Arg Arg Glu Thr Ile Lys  
                                  275                                   280                                   285  
 Gly Ile Gln Lys Arg Glu Ala Ser Asn Cys Phe Ala Ile Arg His Phe  
                                  290                                   295                                   300  
 Glu Asn Lys Phe Ala Val Glu Thr Leu Ile Cys Ser  
 305                                   310                                   315

&lt;210&gt; 1429

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1429

His Thr Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr  
   1                      5                      10                      15  
 Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu  
                                  20                      25                      30  
 Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro  
                                  35                      40                      45  
 Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val  
                                  50                      55                      60



1505

Glu	Leu	Lys	Ser	Leu	Leu	Gly	Lys	Asp	Val	Leu	Phe	Leu	Lys	Asp	Cys	65	70	75	80
Val	Gly	Pro	Glu	Val	Glu	Lys	Ala	Cys	Ala	Asn	Pro	Ala	Ala	Gly	Ser	85	90	95	
Val	Ile	Leu	Leu	Glu	Asn	Leu	Arg	Phe	His	Val	Glu	Glu	Glu	Gly	Lys	100	105	110	
Gly	Lys	Asp	Ala	Ser	Gly	Asn	Lys	Val	Lys	Ala	Glu	Pro	Ala	Lys	Ile	115	120	125	
Glu	Ala	Phe	Arg	Ala	Ser	Leu	Ser	Lys	Leu	Gly	Asp	Val	Tyr	Val	Asn	130	135	140	
Asp	Ala	Phe	Gly	Thr	Ala	His	Arg	Ala	His	Ser	Ser	Met	Val	Gly	Val	145	150	155	160
Asn	Leu	Pro	Gln	Lys	Ala	Gly	Gly	Phe	Leu	Met	Lys	Lys	Glu	Leu	Asn	165	170	175	
Tyr	Phe	Ala	Lys	Ala	Leu	Glu	Ser	Pro	Glu	Arg	Pro	Phe	Leu	Ala	Ile	180	185	190	
Leu	Gly	Gly	Ala	Lys	Val	Ala	Asp	Lys	Ile	Gln	Leu	Ile	Asn	Asn	Met	195	200	205	
Leu	Asp	Lys	Val	Asn	Glu	Met	Ile	Ile	Gly	Gly	Gly	Met	Ala	Phe	Thr	210	215	220	
Phe	Leu	Lys	Val	Leu	Asn	Asn	Met	Glu	Ile	Gly	Thr	Ser	Leu	Phe	Asp	225	230	235	240
Glu	Glu	Gly	Ala	Lys	Ile	Val	Lys	Asp	Leu	Met	Ser	Lys	Ala	Glu	Lys	245	250	255	
Asn	Gly	Val	Lys	Ile	Thr	Leu	Pro	Val	Asp	Phe	Val	Thr	Ala	Asp	Lys	260	265	270	
Phe	Asp	Glu	Asn	Ala	Lys	Thr	Gly	Gln	Ala	Thr	Val	Ala	Ser	Gly	Ile	275	280	285	
Pro	Ala	Gly	Trp	Met	Gly	Leu	Asp	Cys	Gly	Pro	Glu	Ser	Ser	Lys	Lys	290	295	300	
Tyr	Ala	Glu	Ala	Val	Thr	Arg	Ala	Lys	Gln	Ile	Val	Trp	Asn	Gly	Pro	305	310	315	320
Val	Gly	Val	Phe	Glu	Trp	Glu	Ala	Phe	Ala	Arg	Gly	Thr	Lys	Ala	Leu	325	330	335	

1506

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile  
                   340                                  345                                  350

Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp  
                   355                                  360                                  365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu  
                   370                                  375                                  380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile  
                   385                                  390                                  395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe  
       1                                  5                                  10                                  15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu  
                   20                                  25                                  30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu  
                   35                                  40                                  45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg  
                   50                                  55                                  60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val  
                   65                                  70                                  75                                  80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu  
                   85                                  90                                  95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser  
                   100                                  105                                  110

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly  
                   115                                  120                                  125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130                      135                      140  
 Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu  
 145                      150                      155                      160  
 Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp  
                     165                      170                      175  
 Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu  
                     180                      185                      190  
 Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu  
                     195                      200                      205  
 Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val  
                     210                      215                      220  
 Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser  
 225                      230                      235                      240  
 Ile Gln Arg Ser Xaa Leu Cys Lys Asp  
                     245

<210> 1431  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 1431  
 Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu  
 1                      5                      10                      15  
 Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu  
                     20                      25                      30  
 Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg  
                     35                      40                      45  
 Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp  
                     50                      55                      60  
 Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu  
                     65                      70                      75                      80  
 Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala  
                     85                      90                      95  
 Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr  
                     100                      105                      110

1508

Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln Gly Met Asn Gly Cys  
 115 120 125  
 Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly Tyr His Gln His Ala  
 130 135 140  
 Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp  
 145 150 155 160  
 Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala  
 165 170 175  
 Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu  
 180 185 190  
 Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg  
 195 200 205  
 Ala Asp Pro Pro Lys Ala His Val Ala His His Pro Ile Ser Asp His  
 210 215 220  
 Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile  
 225 230 235 240  
 Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu  
 245 250 255  
 Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Arg Ser Gly  
 260 265 270

&lt;210&gt; 1432

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1432

Ala His Ala Ser Gly Ala Pro Glu Gln Arg Pro Arg Pro Pro Arg Leu  
 1 5 10 15  
 Leu Arg Arg Asp Leu Glu Arg Lys Thr Pro Ala Arg Arg Pro Ala Leu  
 20 25 30  
 Ala Ser Leu Pro Thr Gly His Thr Ala Pro Pro Pro Arg Pro Arg Cys  
 35 40 45  
 Ala Arg Pro Val Arg Cys Thr Pro Ala Cys Trp Arg Leu Arg Arg Arg  
 50 55 60

1509

Ala	Arg	Pro	Gly	Leu	Leu	Leu	Arg	Ala	Thr	Met	Ser	Ser	Arg	Ile	Ala	65	70	75	80
Arg	Ala	Leu	Ala	Leu	Val	Val	Thr	Leu	Leu	His	Leu	Thr	Arg	Leu	Ala	85	90	95	
Leu	Ser	Thr	Cys	Pro	Ala	Ala	Cys	His	Cys	Pro	Leu	Glu	Ala	Pro	Lys	100	105	110	
Cys	Ala	Pro	Gly	Val	Gly	Leu	Val	Arg	Asp	Gly	Cys	Gly	Cys	Cys	Lys	115	120	125	
Val	Cys	Ala	Lys	Gln	Leu	Asn	Glu	Asp	Cys	Ser	Lys	Thr	Gln	Pro	Cys	130	135	140	
Asp	His	Thr	Lys	Gly	Leu	Glu	Cys	Asn	Phe	Gly	Ala	Ser	Ser	Thr	Ala	145	150	155	160
Leu	Lys	Gly	Ile	Cys	Arg	Ala	Gln	Ser	Glu	Gly	Arg	Pro	Cys	Glu	Tyr	165	170	175	
Asn	Ser	Arg	Ile	Tyr	Gln	Asn	Gly	Glu	Ser	Phe	Gln	Pro	Asn	Cys	Lys	180	185	190	
His	Gln	Cys	Thr	Cys	Ile	Asp	Gly	Ala	Val	Gly	Cys	Ile	Pro	Leu	Cys	195	200	205	
Pro	Gln	Glu	Leu	Ser	Leu	Pro	Asn	Leu	Gly	Cys	Pro	Asn	Pro	Arg	Leu	210	215	220	
Val	Lys	Val	Thr	Gly	Gln	Cys	Cys	Glu	Glu	Trp	Val	Cys	Asp	Glu	Asp	225	230	235	240
Ser	Ile	Lys	Asp	Pro	Met	Glu	Asp	Gln	Asp	Gly	Leu	Leu	Gly	Lys	Glu	245	250	255	
Leu	Gly	Phe	Asp	Ala	Ser	Glu	Val	Glu	Leu	Thr	Arg	Asn	Asn	Glu	Leu	260	265	270	
Ile	Ala	Val	Gly	Lys	Gly	Ser	Ser	Leu	Lys	Arg	Leu	Pro	Val	Phe	Gly	275	280	285	
Met	Glu	Pro	Arg	Ile	Leu	Tyr	Asn	Pro	Leu	Gln	Gly	Gln	Lys	Cys	Ile	290	295	300	
Val	Gln	Thr	Thr	Ser	Trp	Ser	Gln	Cys	Ser	Lys	Thr	Cys	Gly	Thr	Gly	305	310	315	320
Ile	Ser	Thr	Arg	Val	Thr	Asn	Asp	Asn	Pro	Glu	Cys	Arg	Leu	Val	Lys	325	330	335	

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser  
 340 345 350

Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu  
 355 360 365

Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg  
 370 375 380

Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln  
 385 390 395 400

Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr  
 405 410 415

Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn  
 420 425 430

Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn  
 435 440 445

Asp Ile His Lys Phe Arg Asp  
 450 455

<210> 1433

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu  
 1 5 10 15

Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala  
 20 25 30

Gly Ala Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg  
 35 40 45

His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg  
 50 55 60

Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly  
 65 70 75 80

Glu Phe Glu Gly Arg Gly Pro  
 85

1511

&lt;210&gt; 1434

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1434

Val Trp Arg Ala Gly Ala Gly Met Ala Ser Leu Arg Ser Gln His Gly  
 1 5 10 15  
 Pro Gly Ala Pro Glu Ser Leu Arg Lys Val Leu Met Pro Ser Ser Met  
 20 25 30  
 Gly Leu Leu Leu Ile Leu Tyr Ala Arg Leu Pro Pro Ser Leu Val Gly  
 35 40 45  
 Gln Ala Gly Arg Trp Ile Gly Trp Ala Gly Arg Ala Gly Gly Gln Ala  
 50 55 60  
 Val Arg Gln Pro Ser Pro Thr Val Leu Ile Asp Gly Val Glu Cys Ser  
 65 70 75 80  
 Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val Lys  
 85 90 95  
 His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe  
 100 105 110

&lt;210&gt; 1435

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1435

Gly Ser Gln Asp Ala Arg Arg Gly Ser Gly Leu Gly Val Ser Ser Phe  
 1 5 10 15  
 Leu Arg Gly Ser Gly Gly Ser Gly Pro Leu Trp Val Gln His Gly Lys  
 20 25 30  
 Arg Gly Arg Tyr Phe Ser Ser Trp Ala Phe Ile Lys Glu Lys Thr Met  
 35 40 45  
 Leu Ala Gly Arg Gly Gly Ser Arg Leu Gln Ser Gln His Phe Gly Arg  
 50 55 60  
 Pro Arg Arg Val Asp His Leu Arg Ser Gly Val Gln Asp Gln Pro Gly  
 65 70 75 80

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln  
                             85                            90                            95

Val Trp Trp Leu Thr Leu Met  
                             100

&lt;210&gt; 1436

&lt;211&gt; 413

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser  
   1                            5                            10                            15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Pro Val His  
                             20                            25                            30

Thr Arg Arg Gln Leu Thr Met Asp Asp Asp Ile Ala Ala Leu Val Val  
                             35                            40                            45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala  
                             50                            55                            60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly  
   65                            70                            75                            80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala  
                             85                            90                            95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly  
                             100                            105                            110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe  
                             115                            120                            125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr  
                             130                            135                            140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile  
   145                            150                            155                            160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala  
                             165                            170                            175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp  
                             180                            185                            190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala



1513

195	200	205
Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr		
210	215	220
Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr		
225	230	235 240
Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr		
	245	250 255
Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser		
	260	265 270
Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile		
	275	280 285
Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe		
	290	295 300
Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile		
305	310	315 320
Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val		
	325	330 335
Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln		
	340	345 350
Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile		
	355	360 365
Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu		
	370	375 380
Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr		
385	390	395 400
Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe		
	405	410

&lt;210&gt; 1437

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

1514

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1437

Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly  
 1 5 10 15

Gly His Arg Gly Gly Gly Glu Met Ala Phe Ser Xaa Ser Gln Ala Pro  
 20 25 30

Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu  
 35 40 45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser  
 50 55 60

Gly Thr Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu  
 65 70 75 80

Asp Gly Gly Tyr Val Val Cys Thr Ala Gly Arg Thr Glu Ala Gly Gly  
 85 90 95

Pro

&lt;210&gt; 1438

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1438

Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser  
 1 5 10 15

His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala  
 20 25 30

Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu  
 35 40 45

Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro  
 50 55 60

Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys  
 65 70 75 80

Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala  
 85 90 95

Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp Ser Arg Tyr Ser

1515

100	105	110
Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe		
115	120	125
Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn		
130	135	140
Gln Glu Leu Lys Ala Lys Ala His Lys		
145	150	

&lt;210&gt; 1439

&lt;211&gt; 343

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (244)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (305)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (325)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (328)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (340)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1439

Trp Ile Gln Arg Ile Arg Ala Arg Gly Lys Thr Asn Leu Arg Arg Thr
1                      5                      10                      15

Thr Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe
20                      25                      30

Glu Pro Gln Ile Arg Lys Ile Val Asp Gln Ile Arg Pro Asp Arg Gln
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1516

35	40	45
Thr Leu Met Trp Ser Ala Thr Trp Pro Lys Glu Val Arg Gln Leu Ala		
50	55	60
Glu Asp Phe Leu Lys Asp Tyr Ile His Ile Asn Ile Gly Ala Leu Glu		
65	70	75 80
Leu Ser Ala Asn His Asn Ile Leu Gln Ile Val Asp Val Cys His Asp		
	85	90 95
Val Glu Lys Asp Glu Lys Leu Ile Arg Leu Met Glu Glu Ile Met Ser		
	100	105 110
Glu Lys Glu Asn Lys Thr Ile Val Phe Val Glu Thr Lys Arg Arg Cys		
	115	120 125
Asp Glu Leu Thr Arg Lys Met Arg Arg Asp Gly Trp Pro Ala Met Gly		
	130	135 140
Ile His Gly Asp Lys Ser Gln Gln Glu Arg Asp Trp Val Leu Asn Glu		
	145	150 155 160
Phe Lys His Gly Lys Ala Pro Ile Leu Ile Ala Thr Asp Val Ala Ser		
	165	170 175
Arg Gly Leu Asp Val Glu Asp Val Lys Phe Val Ile Asn Tyr Asp Tyr		
	180	185 190
Pro Asn Ser Ser Glu Asp Tyr Ile His Arg Ile Gly Arg Thr Ala Arg		
	195	200 205
Ser Thr Lys Thr Gly Thr Ala Tyr Thr Phe Phe Thr Pro Asn Asn Ile		
	210	215 220
Lys Gln Val Ser Asp Leu Ile Ser Val Leu Arg Glu Ala Asn Gln Ala		
	225	230 235 240
Ile Asn Pro Xaa Leu Leu Gln Leu Val Glu Asp Arg Gly Ser Gly Arg		
	245	250 255
Ser Arg Gly Arg Gly Gly Met Lys Asp Asp Arg Arg Asp Arg Tyr Ser		
	260	265 270
Ala Gly Lys Arg Gly Gly Phe Asn Thr Phe Arg Asp Arg Glu Asn Tyr		
	275	280 285
Asp Arg Gly Tyr Ser Ser Leu Leu Lys Arg Asp Phe Gly Ala Lys Thr		
	290	295 300
Xaa Asn Gly Gly Tyr Ser Ala Cys Lys Phe Thr Asn Gly Ser Phe Gly		

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305              310              315              320
Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly
              325              330              335

Ile Pro Thr Xaa Ala Leu Pro
              340

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Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe  
1 5 10 15

1518

Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val  
                   20                  25                  30

Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly  
           35                  40                  45

Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg  
       50                  55                  60

Ile Pro Met Glu Asn Lys Phe Asp Phe Ala  
   65                  70

&lt;210&gt; 1442

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1442

Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro  
   1                  5                  10                  15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu  
           20                  25                  30

Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly  
           35                  40                  45

Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser  
       50                  55                  60

Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser  
       65                  70                  75                  80

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp  
                   85                  90                  95

Ser Gln Thr Pro Asp Leu Arg  
           100

1519

<210> 1443  
<211> 106  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (63)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (83)  
<223> Xaa equals any of the naturally occurring L-amino acids

1520

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1443

Leu His Ala Ala Ala Cys Ala Ala Ala Met Ser Leu Val Ile Pro Glu  
 1 5 10 15

Lys Phe Gln His Ile Leu Arg Val Leu Asn Thr Asn Ile Asp Gly Arg  
 20 25 30

Arg Lys Ile Ala Phe Ala Ile Thr Ala Ile Lys Gly Val Gly Arg Xaa  
 35 40 45

Tyr Ala His Val Xaa Leu Arg Lys Xaa Xaa Ile Asp Leu Thr Xaa Arg  
 50 55 60

Ala Xaa Glu Leu Thr Xaa Asp Xaa Val Glu Arg Val Ile Thr Ile Met  
 65 70 75 80

Gln Asn Xaa Arg Gln Tyr Lys Ile Pro Asp Trp Phe Leu Asn Arg Gln  
 85 90 95

Asn Asp Xaa Xaa Asp Xaa Ser Thr Ser Ser  
 100 105

&lt;210&gt; 1444

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1444

Pro Val Trp Pro Lys Trp Ser Gly Trp Pro Leu Ala Leu Pro  
 1 5 10



1521

<210> 1445  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (123)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1445  
 Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu  
     1                    5                    10                    15

Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu  
                     20                    25                    30

Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly  
                     35                    40                    45

Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys  
                     50                    55                    60

Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys  
     65                    70                    75                    80

Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His  
                     85                    90                    95

Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met  
                     100                    105                    110

Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly  
                     115                    120                    125

1522

&lt;210&gt; 1446

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1446

Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly  
 1 5 10 15

Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser  
 20 25 30

Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly  
 35 40 45

Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser  
 50 55 60

Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn  
 65 70 75 80

Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn  
 85 90 95

Cys

&lt;210&gt; 1447

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1447

His Ser Arg His Arg Gly Val Phe Leu Thr Pro Leu Leu Ala Met Ser  
 1 5 10 15

Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys Gln Lys  
 20 25 30

Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly Lys  
 35 40 45

1523

&lt;210&gt; 1448

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1448

Val	Phe	Arg	Val	Glu	Ala	Trp	Arg	Thr	Ser	Gly	Glu	Thr	Pro	Ala	Ile
1				5				10						15	

Ser	Pro	Ser	Lys	Arg	Ala	Arg	Pro	Ala	Glu	Val	Gly	Gly	Met	Gln	Leu
			20				25						30		

Arg	Phe	Ala	Arg	Leu	Ser	Glu	His	Ala	Thr	Ala	Pro	Thr	Arg	Gly	Ser
		35					40					45			

Ala	Arg	Ala	Ala	Gly	Tyr	Asp	Leu	Tyr	Ser	Ala	Tyr	Asp	Tyr	Thr	Ile
	50					55					60				

Pro	Pro	Met	Glu	Lys	Ala	Val	Val	Lys	Thr	Asp	Ile	Gln	Ile	Ala	Leu
65					70					75					80

Pro	Ser	Gly	Cys	Xaa	Gly	Arg	Val	Ala	Pro	Arg	Ser	Gly	Leu	Ala	Ala
				85					90					95	

Lys	His	Phe	Ile	Asp	Val	Gly	Xaa	Val	Ser
			100					105	

&lt;210&gt; 1449

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1524

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1449

Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys  
 1 5 10 15

Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr  
 20 25 30

Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr  
 35 40 45

Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser  
 50 55 60

&lt;210&gt; 1450

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1450

Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr  
 1 5 10 15

Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe  
 20 25 30

Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly  
 35 40 45

&lt;210&gt; 1451

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu  
 1 5 10 15

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu  
 20 25 30

Arg Ile

1525

&lt;210&gt; 1452

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1452

Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro  
1 5 10 15

Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg  
20 25 30

Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala  
35 40 45

Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His  
50 55 60

&lt;210&gt; 1453

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1453

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu  
1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro  
20 25 30

Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu  
35 40

&lt;210&gt; 1454

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1526

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1454

Thr	Arg	Val	Ala	Pro	Ser	Val	Leu	Arg	Leu	Ala	Met	Thr	Ser	Tyr	Ser
1				5					10					15	

Tyr	Arg	Gln	Ser	Ser	Ala	Thr	Ser	Ser	Phe	Gly	Gly	Leu	Gly	Gly	Gly
			20					25					30		

Ser	Val	Arg	Ile	Gly	Pro	Gly	Val	Ala	Phe	Arg	Ala	Pro	Ser	Ile	His
			35				40						45		

Gly	Gly	Ser	Gly	Gly	Arg	Gly	Val	Ser	Val	Ser	Ser	Ala	Arg	Phe	Val
	50					55					60				

Ser	Ser	Ser	Ser	Ser	Gly	Gly	Tyr	Gly	Gly	Gly	Xaa	Gly	Gly	Val	Leu
	65					70				75				80	

Thr	Ala	Ser	Xaa	Gly	Leu	Leu	Ala	Gly	Asn	Glu	Lys	Leu	Thr	Met	Gln
				85					90					95	

Asn	Xaa	Xaa	Thr	Ala	Trp	Leu	Leu	Leu	Xaa	Lys	Phe	Ala	Pro	Xaa	Gly
				100				105						110	

Ala Lys Gly Thr Lys Ser

1527

115

&lt;210&gt; 1455

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1455

Ala	Xaa	Glu	Asn	Ser	Arg	Ile	Val	Leu	Gln	Ile	Asp	Asn	Ala	Arg	Leu
1				5				10						15	

Ala	Ala	Asp	Asp	Phe	Arg	Thr	Lys	Phe	Glu	Thr	Glu	Gln	Ala	Leu	Arg
		20						25						30	

Met	Xaa	Val	Glu	Ala	Asp	Ile	Asn	Gly	Leu	Xaa	Arg	Cys	Trp	Met	Ser
		35						40				45			

&lt;210&gt; 1456

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1528

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1456

Gly Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys  
 1 5 10 15

Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp  
 20 25 30

Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu  
 35 40 45

Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg  
 50 55 60

Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile  
 65 70 75 80

Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu  
 85 90 95

Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu  
 100 105 110

Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met  
 115 120 125

Arg Ser Xaa Tyr Glu Val Met Ala Xaa Gln Asn Arg Lys Asp Ala  
 130 135 140

&lt;210&gt; 1457

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1457

Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala  
 1 5 10 15

Ser Gly Ser Ala Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser  
 20 25 30

Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val



1529

35                      40                      45  
 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val  
 50                      55                      60  
 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn  
 65                      70                      75                      80  
 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala  
 85                      90                      95  
 Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys  
 100                      105                      110  
 Cys Cys Ser Ser  
 115

&lt;210&gt; 1458

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1458

Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala  
 1                      5                      10                      15  
 Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn  
 20                      25                      30  
 Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly  
 35                      40                      45  
 Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn  
 50                      55                      60  
 Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala  
 65                      70                      75                      80  
 Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser  
 85                      90                      95  
 Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys  
 100                      105                      110

1530

Asp Glu Lys  
115

<210> 1459  
<211> 132  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (115)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (123)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (126)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (129)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1459  
Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser  
1 5 10 15

Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser  
20 25 30

Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ala Ile Ser Lys  
35 40 45

Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Leu Gln Val Gln  
50 55 60

His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val  
65 70 75 80

Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp  
85 90 95

Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu  
100 105 110

1531

Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val  
115 120 125

Xaa Lys His Thr  
130

<210> 1460

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1532

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (119)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1460

Xaa Ser Xaa Lys Thr Gly Phe Xaa Asp Trp Ile Ser Val Ala Tyr Tyr  
1 5 10 15

Gly Cys Phe Arg Glu Gly Ala Thr Ile Ile Gln Val Gly Lys Leu Ile  
20 25 30

Lys Glu Ala Ala Gly Lys Ser Asn Leu Lys Arg Val Thr Leu Glu Leu  
35 40 45

Gly Gly Lys Ser Pro Cys Ile Val Leu Ala Asp Ala Asp Leu Asp Asn  
50 55 60

Ala Val Glu Phe Ala His His Gly Val Phe Tyr His Gln Gly Gln Xaa  
65 70 75 80

Cys Ile Ala Ala Xaa Arg Ile Phe Val Glu Glu Ser Ile Tyr Asp Glu  
85 90 95

Phe Val Arg Arg Ser Val Glu Arg Val Lys Xaa Ile Ser Leu Gly Xaa  
100 105 110

Pro Leu Thr Pro Xaa Val Xaa Xaa Xaa Pro Ser Asp  
115 120

&lt;210&gt; 1461

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1533

<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (125)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (142)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (145)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (157)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (163)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (173)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (174)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (176)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1461  
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala  
1. 5 10 15  
Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu  
20 25 30

[illegible]

Gly Ala Ala Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr  
20 25 30

1535

&lt;210&gt; 1463

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1463

Asp Asp Cys Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr  
1 5 10 15

Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr  
20 25 30

Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp  
35 40 45

Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val Asp  
50 55 60

Xaa Gly Pro Val Xaa Phe Leu  
65 70

&lt;210&gt; 1464

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

1536

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1464

Xaa Gly Thr Arg His Xaa Leu Arg Thr Xaa Asn Gln Ser Ser Asp Glu  
1 5 10 15

Leu Gln Leu Ser Met Gly Asn Ala Met Phe Val Lys Glu Gln Leu Ser  
20 25 30

Leu Leu Asp Arg Phe Thr Glu Asp Ala Lys Arg Leu Tyr Gly Ser Glu  
35 40 45

Ala Phe Ala Thr Asp Phe Gln Asp Ser Ala Ala Ala Lys Lys Leu Ile  
50 55 60

Asn Asp Tyr Val Lys Asn Gly Thr Arg Gly Thr Ile Thr  
65 70 75

<210> 1465

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

Leu Lys Gly Arg Pro Gly Phe Pro Gly Ser Lys Gly Glu Ala Gly Phe  
1 5 10 15

Phe Gly Ile Pro Gly Leu Lys Gly Leu Ala Gly Glu Pro Gly Phe Lys  
20 25 30



1537

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu  
           35                          40                          45  
 Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met  
           50                          55                          60  
 Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly  
           65                          70                          75                          80  
 Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His  
                           85                          90                          95  
 Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly  
                   100                          105

&lt;210&gt; 1466

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1466

Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro  
   1                  5                          10                          15  
 Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly  
                   20                          25                          30

Val Trp Glu Thr  
           35

&lt;210&gt; 1467

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1538

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1467

Arg	Val	Pro	Ala	Met	Ala	Ala	Lys	Gly	Gly	Thr	Val	Lys	Ala	Ala	Ser
1					5					10					15

Ala	Phe	Asn	Ala	Thr	Glu	Asp	Ala	Gln	Thr	Leu	Arg	Lys	Ala	Met	Lys
			20					25					30		

Gly	Leu	Gly	Thr	Asp	Glu	Asp	Ala	Ile	Ile	Ser	Val	Leu	Ala	Tyr	Arg
		35						40					45		

Asn	Thr	Ala	Gln	Arg	Gln	Glu	Ile	Arg	Thr	Ala	Leu	Gln	Glu	His	His
	50					55					60				

Ser	Ala	Gly	Asp	Leu	Val	Leu	Arg	Asn	Gly	Pro	Xaa	Phe	Val	Xaa	Xaa
65					70					75					80

Trp Xaa

&lt;210&gt; 1468

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1539

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1468

Gly	Trp	His	Leu	Gly	Pro	Pro	Gly	Ser	Trp	Cys	Trp	Trp	Ser	Xaa	Cys
1				5				10						15	

Ile	Thr	Gly	Pro	Asn	Thr	Ser	Xaa	Cys	Cys	Trp	Thr	His	Phe	Glu	Lys
		20						25					30		

Pro	Arg	Xaa	Ile	Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp
		35					40					45			

Ser	Thr	Glu	Ile	Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Xaa	Cys	Pro	Val
		50				55					60				

Leu	Xaa	Val	Phe	Phe	Pro	Phe	Ser	Ile	Gln	Leu	Phe	Pro	Asn	Xaa	Phe
65						70				75				80	

Pro Xaa Xaa

&lt;210&gt; 1469

1540

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1469

Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln  
1 5 10 15

Pro Lys Ile Val Lys Trp Asp Arg Asp Met  
20 25

&lt;210&gt; 1470

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (148)

1541

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1470

Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Gly	Gly	Arg	Ser
1				5						10				15	

Xaa	Gly	Ser	Lys	Leu	Thr	Tyr	Ala	Cys	Met	Arg	Arg	His	Ser	Ser	Ser
			20					25					30		

Ile	Val	Ser	Pro	Lys	Phe	Asn	Ser	Leu	Ala	Val	Val	Leu	Gln	Arg	Arg
		35					40					45			

Asp	Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	Arg	Leu	Ala	Ala	His
	50					55					60				

Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Glu	Glu	Ala	Arg	Thr	Asp	Arg
65					70					75				80	

Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly	Lys	Trp	Asp	Ala	Pro	Cys
			85						90					95	

Ser	Gly	Ala	Leu	Ser	Ala	Ala	Gly	Val	Val	Val	Thr	Arg	Ser	Val	Thr
		100					105						110		

Ala	Thr	Leu	Ala	Ser	Ala	Leu	Arg	Pro	Val	Leu	Ser	Phe	Leu	Pro	Phe
		115					120					125			

Leu	Ser	Arg	His	Val	Arg	Arg	Xaa	Ser	Pro	Xaa	Ser	Xaa	Lys	Xaa	Gly
	130					135					140				

Ala	Xaa	Phe	Xaa	Val	Pro	Ile	Xaa	Xaa	Leu	Arg	Asp	Leu	Xaa	Pro	Lys
145					150					155				160	

Asn	Leu	Ile	Arg	Val	Met	Val	Thr
				165			

1542

<210> 1471  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (88)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (111)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1471  
 Cys His Leu Asn Ser Ile His Trp Pro Ser Phe Tyr Asn Val Val Thr  
     1                    5                    10                    15

Gly Lys Thr Leu Ala Xaa Pro Asn Leu Ile Ala Leu Gln His Ile Pro  
                     20                    25                    30

Leu Ser Pro Ala Gly Ser Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro  
                     35                    40                    45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Asp Ala Pro Cys Ser  
                     50                    55                    60

Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr Ala  
                     65                    70                    75                    80

Thr Leu Ala Ser Ala Leu Ala Xaa Ala Pro Phe Ala Phe Phe Pro Ser  
                     85                    90                    95

1543

Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly  
100 105 110

Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys  
115 120 125

Lys Leu Asp  
130

&lt;210&gt; 1472

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1544

<220>  
<221> SITE  
<222> (74)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (105)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (109)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (110)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (114)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (118)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (119)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>



1545

<221> SITE  
 <222> (125)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (139)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (150)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (161)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (167)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (179)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 1472  
 Lys Lys Lys Lys Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
   1                  5                  10                  15  
  
 Lys Lys Lys Lys Gly Gly Arg Xaa Xaa Gly Ser Lys Leu Thr Tyr Ala  
           20                  25                  30  
  
 Cys Met Xaa Arg His Ser Ser Xaa Ile Gly Ser Pro Lys Phe Asn Ser  
       35                  40                  45  
  
 Leu Ala Xaa Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr  
   50                  55                  60  
  
 Gln Leu Asn Arg Leu Ala Xaa His Pro Xaa Phe Ala Ser Trp Arg Asn  
   65                  70                  75                  80  
  
 Ser Xaa Lys Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu  
           85                  90                  95  
  
 Asn Gly Lys Trp Asp Xaa Pro Cys Xaa Gly Ala Leu Xaa Xaa Ala Gly  
       100                  105                  110

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala  
 115 120 125

Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly  
 130 135 140

Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu  
 145 150 155 160

Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp  
 165 170 175

Gly Ser Xaa

<210> 1473

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1473

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
 35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala  
 50 55

<210> 1474

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1474

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
 35 40 45

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu  
50 55 60

Glu Ala Arg Thr Asp Arg  
65 70

<210> 1475

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1475

Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg

1548

1                      5                      10                      15  
Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr  
                    20                      25                      30  
His Ala Ser Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Arg Xaa  
                    35                      40                      45  
Asp Asp Leu Glu Asp Pro Lys Leu Thr Tyr Xaa Xaa Met Gln  
                    50                      55                      60

&lt;210&gt; 1476

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

1549

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1476

Ile	Arg	Xaa	Xaa	Xaa	Leu	Arg	Xaa	Asp	Thr	Thr	His	Tyr	Arg	Glu	Ser
1					5				10					15	

Trp	Tyr	Ala	Cys	Arg	Tyr	Arg	Ser	Gly	Ile	Pro	Gly	Xaa	Thr	His	Ala
		20						25					30		

Ser	Val	Glu	Ile	Cys	Pro	Pro	Xaa	Ser	Arg	Pro	Xaa	Ser	Ser	Gln	Ser
		35					40					45			

Asn	Gly	Glu	Gly	Tyr	Ser	Xaa	Cys	Arg	Arg	Pro	Gln	Ala	Leu	Glu	Ala
	50					55					60				

Ala	Thr	Tyr	Leu	Asn	Pro	Val	Pro	Xaa	Arg	Ile	Leu	Leu	Lys	Pro	Phe
65				70						75					80

&lt;210&gt; 1477

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1477

Arg	Gln	Val	Pro	His	Glu	Arg	Ala	Val	Arg	Asp	Gly	Arg	Gly	Gly	Gly
1				5					10					15	

Arg	Ser	Arg	Gly	Ser	Lys	Leu	Thr	Tyr	Ala	Cys	Met	Arg	Arg	His	Ser
		20						25					30		

Ser	Ser	Ile	Val	Ser	Pro	Lys	Phe	Asn	Ser	Leu	Ala	Val	Val	Leu	Gln
		35					40					45			

Arg	Arg	Asp	Trp
			50

1550

&lt;210&gt; 1478

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (140)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1478

Ile	Ala	Ser	Gly	Arg	Ser	Arg	Gly	Ser	Lys	Leu	Thr	Tyr	Ala	Cys	Met
1				5					10					15	

Arg	Arg	His	Ser	Ser	Ser	Ile	Val	Ser	Pro	Lys	Phe	Asn	Ser	Leu	Ala
			20					25					30		

Val	Val	Leu	Gln	Arg	Arg	Asp	Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu
		35					40					45			

Asn	Arg	Leu	Ala	Ala	His	Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Glu
	50					55					60				

Glu	Ala	Arg	Thr	Asp	Arg	Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly
65					70					75					80

Glu	Trp	Asp	Ala	Pro	Cys	Ser	Gly	Ala	Leu	Ser	Ala	Ala	Gly	Val	Val
			85						90					95	

Val	Thr	Arg	Ser	Val	Thr	Ala	Thr	Leu	Ala	Ser	Ala	Leu	Ala	Pro	Ala
			100					105					110		

Pro	Phe	Ala	Phe	Phe	Pro	Ser	Phe	Leu	Ala	Thr	Phe	Ala	Gly	Phe	Pro
		115					120					125			

Arg	Gln	Ala	Leu	Asn	Arg	Gly	Leu	Pro	Leu	Gly	Xaa	Arg	Phe	Lys	Cys
	130					135					140				

Phe	Thr	Asp	Leu	Asp	Pro	Lys	Lys	Leu	Asp
145					150				

&lt;210&gt; 1479

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1551

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1479

Ile Ala Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu  
50 55 60

Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly  
65 70 75 80

Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val  
85 90 95

Val Thr Arg Ser Val Thr Ala Thr Leu Ala Lys Arg Pro Lys Arg Pro  
100 105 110

Phe Leu Ser Leu Ser Ser Phe Leu Phe Xaa Pro Arg Ser Ala Gly Phe  
115 120 125

Ser Pro  
130

&lt;210&gt; 1480

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1552

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1480

Ile	Ala	Ser	Gly	Arg	Ser	Arg	Gly	Ser	Lys	Leu	Thr	Tyr	Ala	Cys	Met
1				5					10					15	

Arg	Arg	His	Ser	Ser	Ser	Ile	Val	Ser	Pro	Lys	Phe	Asn	Ser	Leu	Ala
			20					25					30		

Val	Val	Leu	Gln	Arg	Arg	Asp	Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu
		35					40					45			

Asn	Arg	Leu	Ala	Ala	His	Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Glu
	50					55					60				

Glu	Ala	Arg	Thr	Asp	Arg	Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly
65					70					75					80

Glu	Trp	Asp	Ala	Pro	Cys	Ser	Gly	Ala	Leu	Ser	Ala	Ala	Gly	Val	Val
			85						90					95	

Val	Thr	Arg	Ser	Val	Thr	Xaa	Thr	Leu	Ala	Ser	Ala	Leu	Ala	Pro	Xaa
		100						105					110		

Pro	Phe	Ala	Phe	Phe	Leu	Leu	Ser	Arg	His	Gly	Arg	Pro	Ala	Xaa	Pro
		115					120					125			

Xaa	Lys	Leu
	130	

&lt;210&gt; 1481

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)



1553

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr  
1 5 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe  
20 25 30

Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly  
35 40 45

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp  
50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg  
65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala  
85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro  
100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

1554

1                    5                    10                    15  
Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met  
                  20                    25                    30  
Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr  
                  35                    40                    45  
Phe Xaa Ile Leu Cys  
                  50

<210> 1483  
<211> 61  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1483  
Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr  
1                    5                    10                    15  
Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile  
                  20                    25                    30  
Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala  
                  35                    40                    45  
Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr  
                  50                    55                    60

<210> 1484  
<211> 27  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (6)

1555

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1484

Gly	Glu	Gly	Pro	Thr	Xaa	Pro	Leu	Pro	Ser	Glu	Thr	Xaa	Gly	Asp	Val
1					5				10					15	

Ala	Pro	Leu	Xaa	Cys	Xaa	Xaa	Gly	Leu	Asn	Met
			20					25		

<210> 1485

<211> 45

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

1556

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1485

Phe Leu Ala Ala Gly Asn Pro Leu Arg Trp Pro Xaa Ile Leu Thr Ser  
 1 5 10 15

Arg Trp Lys Ser Asp Ile Tyr Xaa Arg Lys Ser Asp Gly Xaa Tyr Ile  
 20 25 30

Ile Xaa Leu Lys Arg Thr Trp Glu Lys Leu Leu Leu Gly  
 35 40 45

&lt;210&gt; 1486

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1486

Pro Arg Val Arg Arg Ala Glu Trp Leu Cys Gly Arg Val Ser Glu Thr  
 1 5 10 15

Gly Ser Ala Cys Ser Met Ala Asp Gln Leu Thr Glu Glu Gln Ile Ala  
 20 25 30

Glu Phe Lys Glu Ala Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr  
 35 40 45

Ile Thr Thr Lys Glu Leu Gly Thr Val Met Arg Ser Leu Gly Gln Asn  
 50 55 60

Pro Thr Glu Ala Glu Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp  
 65 70 75 80

Gly Asn Gly Thr Ile Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg  
 85 90 95

Lys Met Lys Asp Thr Asp Ser Glu Glu Glu Ile Arg Glu Ala Phe Arg  
 100 105 110

Val Phe Asp Lys Asp Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg  
 115 120 125

His Val Met Thr Asn Leu Gly Arg Glu Val Asn Arg  
 130 135 140

1557

<210> 1487  
<211> 36  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (8)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1487  
Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa  
1 5 10 15

Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His  
20 25 30

Glu Lys Xaa Ser  
35

<210> 1488  
<211> 34  
<212> PRT

1558

&lt;213&gt; Homo sapiens

&lt;400&gt; 1488

Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr  
 1 5 10 15

Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala  
 20 25 30

Arg Leu

&lt;210&gt; 1489

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1489

Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg  
 1 5 10 15

Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr  
 20 25 30

Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu  
 35 40 45

Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala  
 50 55 60

1559

Arg Arg Leu Thr Leu Ala Arg Arg Asp Asp Asp Pro Leu Asn Ala Arg  
65 70 75 80

Val Ala Leu Leu Gln Phe Gly Gly Pro Gly Glu Gln Gln Val Ala Phe  
85 90 95

Pro Leu Ser His Asn Leu Thr Ala Ile His Glu Ala Leu Glu Thr Thr  
100 105 110

Gln Tyr Leu Asn Ser Phe Ser His Val Gly Ala Gly Val Val His Ala  
115 120 125

Ile Asn Ala Ile Val Arg Ser Pro Arg Gly Gly Ala Arg Arg His Ala  
130 135 140

Glu Leu Pro Ser Trp Ser Ser Arg Thr Ala Ser Arg Ala Thr Thr Xaa  
145 150 155 160

&lt;210&gt; 1490

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1560

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1490

Ala	Gln	Met	Gly	Met	Leu	Lys	Gly	Pro	Leu	Leu	Asn	Lys	Phe	Leu	Thr
1				5					10					15	

Thr	Ala	Lys	Asp	Lys	Asn	Arg	Trp	Glu	Asp	Xaa	Gly	Lys	Gln	Leu	Tyr
			20					25					30		

Asn	Val	Glu	Ala	Thr	Ser	Tyr	Xaa	Leu	Xaa	Ala	Leu	Leu	Gln	Leu	Lys
			35				40					45			

Xaa	Phe	Asp	Phe	Val	Pro	Pro	Val	Val	Xaa	Xaa	Leu	Asn	Xaa	Gln	Arg
							55				60				



1561

Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe  
65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu  
85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu  
100 105

<210> 1491

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1491

Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp  
1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile  
20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser  
35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys  
50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile  
65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala  
85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe  
100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His  
115 120 125

<210> 1492

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (62)

1562

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1492

Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala  
1 5 10 15

Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His  
20 25 30

Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser  
35 40 45

Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn  
50 55 60

Val Pro Glu Val  
65

<210> 1493

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1563

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1493

Glu	Glu	Ile	Gln	Lys	His	Asn	His	Ser	Lys	Ser	Thr	Trp	Xaa	Asp	Pro
1				5					10					15	

Xaa	Thr	Thr	Arg	Cys	Thr	Asn	Leu	Thr	Lys	Phe	Leu	Xaa	Glu	Ala	Ser
			20					25					30		

Leu	Val	Gly	Glu	Glu	Val	Leu	Arg	Gly	Thr	Ser	Leu	Glu	Val	Thr	Leu
		35					40					45			

Leu	Glu	Glu	Xaa	Leu	Arg	Xaa	Val	Arg	Gly	Thr	Phe	Thr	Xaa	Xaa	Pro
	50				55						60				

Lys	Gly	Lys	Leu	Phe	Pro	Lys	Thr	Phe	Xaa
65						70			

&lt;210&gt; 1494

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1494

Asp	Ala	Thr	Ser	Pro	Ile	Ile	Glu	Glu	Leu	Ile	Thr	Phe	His	Asp	His
1					5					10				15	

1564

Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu  
                   20                  25                  30

Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala  
                   35                  40                  45

Xaa Glu Ile Glu Thr Val  
                   50

&lt;210&gt; 1495

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1495

Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly  
   1                  5                  10                  15

Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe  
                   20                  25                  30

Gly Tyr Ile Gly Met Val  
                   35

&lt;210&gt; 1496

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1496

Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His  
   1                  5                  10                  15

Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu  
                   20                  25                  30

Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr  
                   35                  40                  45

&lt;210&gt; 1497

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu  
 1 5 10 15  
 Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe  
 20 25 30  
 Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn  
 35 40 45  
 Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val  
 50 55 60

<210> 1498  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 1498  
 Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile  
 1 5 10 15  
 Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly  
 20 25 30  
 Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val  
 35 40 45

<210> 1499  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499  
 His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys  
 1 5 10 15  
 Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln  
 20 25 30  
 Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu  
 35 40 45

1566

Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys  
50 55 60

Leu Gln Lys Gly Asp  
65

<210> 1500

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1500

Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu  
1 5 10 15

Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala  
20 25 30

Ser Leu Thr  
35

<210> 1501

<211> 126

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1567

<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (68)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1568

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1501

Phe Xaa Ala Pro Ser Arg Ile Ser Ala Trp Xaa Gly Pro Pro Ala Ser  
1 5 10 15

Thr Pro Ala Ser Thr Met Ser Ile Lys Val Thr Gln Lys Ser Tyr Lys  
20 25 30

Xaa Ser Thr Ser Ser Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Asn  
35 40 45

Xaa Pro Gly Ser Arg Ile Asn Xaa Ser Xaa Phe Ser Arg Ile Gly Ser  
50 55 60

Ser Asn Xaa Xaa Ser Gly Leu Gly Gly Gly Tyr Xaa Gly Ala Ser Xaa  
65 70 75 80

Met Xaa Gly Ile Thr Ala Val Thr Val Asn Gln Ser Leu Leu Xaa Pro  
85 90 95

Leu Xaa Leu Glu Val Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu  
100 105 110

Lys Glu Gln Ile Xaa Thr Leu Asn Asn Lys Phe Ala Ser Ser  
115 120 125

&lt;210&gt; 1502

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



1569

<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (30)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (44)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (63)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1570

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1502

Gln	Arg	Asn	Ser	Xaa	Gly	Ser	Arg	Thr	Xaa	Xaa	Ser	Arg	Xaa	Xaa	Cys
1				5				10					15		

Lys	Xaa	Val	Ala	Met	Phe	Ser	Trp	Asp	Pro	Xaa	Leu	Val	Xaa	Gly	Gly
		20					25					30			

Gly	Ala	Ser	Lys	Met	Ala	Val	Ala	His	Ala	Leu	Xaa	Glu	Lys	Ser	Xaa
	35					40					45				

Ala	Met	Asp	Trp	Cys	Gly	Asn	Asn	Gly	His	Thr	Gly	Leu	Leu	Xaa	Arg
	50				55					60					

Ala	Leu	Xaa	Val	His	Ser	Ser	Xaa	Pro	Trp	Ile	Xaa	Lys	Leu	Trp	Gly
65					70				75					80	

Xaa Ser His His

&lt;210&gt; 1503

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1571

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1503

Val Gly Val Leu Gly Leu Asp Leu Trp Gln Val Lys Ser Gly Thr Ile  
1 5 10 15

Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu Ala Tyr Ala Glu Glu Phe  
20 25 30

Gly Asn Glu Thr Trp Gly Val Thr Lys Ala Ala Glu Lys Gln Met Lys  
35 40 45

Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys Glu Glu Glu Asp Lys  
50 55 60

Lys Arg Lys Glu Xaa Xaa  
65 70

&lt;210&gt; 1504

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1572

&lt;400&gt; 1504

Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Leu Xaa  
1 5 10 15

Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp  
20 25 30

Ser Met Leu Glu His Glu Ala Tyr Xaa Ile  
35 40

&lt;210&gt; 1505

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1505

Xaa His Xaa Asp Cys Ser Xaa Pro Ile Val Ala Ala Gly Val Gly Glu  
1 5 10 15

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu  
                   20                  25                  30  
 Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys  
                   35                  40                  45  
 Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile  
                   50                  55                  60  
 Xaa Lys Glu Val Ser Thr Tyr Xaa  
                   65                  70

<210> 1506  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 1506  
 Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu  
   1                  5                  10                  15  
 Asp Asn Phe Leu Asp Lys Leu  
                   20

<210> 1507  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1507  
 Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn  
   1                  5                  10                  15  
 Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly  
                   20                  25                  30  
 His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys  
                   35                  40                  45  
 Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala  
                   50                  55                  60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile  
 65 70 75 80

Gly Tyr Leu Leu Val Glu Ile  
 85

&lt;210&gt; 1508

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1508

Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser  
 1 5 10 15

Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro  
 20 25 30

Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val  
 35 40 45

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Ala Arg Ala His Arg  
 50 55 60

1575

Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe  
65 70 75 80

Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa  
85 90 95

Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys  
100 105 110

<210> 1509

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1576

&lt;400&gt; 1509

Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser  
 1 5 10 15

Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr  
 20 25 30

Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro  
 35 40 45

Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr  
 50 55 60

&lt;210&gt; 1510

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1510

Gly Thr Ser Ser Ser Gln Arg Phe Tyr Lys Glu Asn Leu Gly Gln Gly  
 1 5 10 15

Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly  
 20 25 30

Phe Ser Ala Phe Pro Phe Glu Leu Leu His Thr Pro Glu Lys Trp Val  
 35 40 45

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly



1577

50                                      55                                      60  
 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile  
 65                                      70                                      75                                      80  
 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro  
                                     85                                      90                                      95  
 Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu  
                                     100                                      105                                      110  
 Asp Asn Xaa Phe  
                                     115

<210> 1511  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (143)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1511  
 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr  
 1                                      5                                      10                                      15  
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly  
                                     20                                      25                                      30  
 Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly  
                                     35                                      40                                      45  
 Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser  
                                     50                                      55                                      60  
 Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn  
 65                                      70                                      75                                      80

1578

Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Gly Asp Arg Gly  
85 90 95

Arg Gly Gly Pro Gly Gly Met Xaa Gly Gly Arg Gly Gly Leu Met Asp  
100 105 110

Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg  
115 120 125

Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Xaa Gly  
130 135 140

Gly Arg Arg Gly Gly Pro Gly Gly Pro Leu Asp Leu  
145 150 155

&lt;210&gt; 1512

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

1579

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1512

Pro Met Arg Arg Pro Arg Gly Glu Pro Ala Pro Gly Pro Arg Asp Arg  
 1 5 10 15

Leu Arg Glu Arg Pro Ala Gln Gly Pro Gly Ser His Val Arg Val Ala  
 20 25 30

Pro Leu Ala Thr Val Asn Ile Leu Xaa Ser Leu Cys Gln Leu Arg Cys  
 35 40 45

Leu Pro Phe Xaa Ala Leu His Phe Val Xaa Ser Pro Gly Phe Ile Xaa  
 50 55 60

Tyr Ile Ser Gly Thr Pro His Ala Leu Ile Val Arg Arg Tyr Leu Ser  
 65 70 75 80

Leu Leu Asp Thr Ala Val Glu Leu Xaa Leu Pro Arg Tyr Arg Gly Pro  
 85 90 95

Arg Leu Pro Arg Xaa Gln  
 100

&lt;210&gt; 1513

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1513

Glu Thr Glu Arg Gly Phe Glu Glu Leu Pro Leu Cys Ser Cys Arg Met  
 1 5 10 15

Glu Ala Pro Lys Ile Asp Ser Ile Ser Glu Arg Ala Gly His Lys Cys  
 20 25 30

Met Ala Thr Glu Ser Val Asp Gly Glu Leu Ser Gly Cys Asn Ala Ala  
 35 40 45

Ile Leu Lys Arg Glu Thr Met Arg Pro Ser Ser Arg Val Ala Leu Met  
 50 55 60

Val Leu Cys Glu Thr His Arg Ala Arg Met Val Lys His His Cys Cys  
 65 70 75 80

1580

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His  
85 90 95

Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln  
100 105 110

Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu  
115 120 125

Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly  
130 135

<210> 1514

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1581

<221> SITE  
<222> (41)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (60)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (68)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1514  
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His  
1 5 10 15  
Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg  
20 25 30  
Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr  
35 40 45  
Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val  
50 55 60  
Thr Phe Thr Xaa Met Xaa His Gly  
65 70

1582

&lt;210&gt; 1515

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1515

Leu	Tyr	Pro	Pro	Ala	Cys	Ser	Ala	Thr	Arg	Thr	Pro	Ser	Thr	Met	Thr
1				5					10					15	

Thr	Ser	Ala	Ser	Ser	His	Leu	Asn	Lys	Gly	Ile	Lys	Gln	Val	Tyr	Met
		20						25					30		

Ser	Leu	Pro	Gln	Gly	Glu	Lys	Val	Gln	Ala	Met	Tyr	Ile	Trp	Ile	Asp
		35					40						45		

Gly	Thr	Gly	Glu	Gly	Leu	Arg	Cys	Lys	Thr	Arg	Thr	Leu	Asp	Ser	Glu
	50					55					60				

Pro	Lys	Cys	Val	Glu	Glu	Leu	Pro	Glu	Trp	Asn	Phe	Asp	Gly	Ser	Ser
65						70				75					80

Thr	Xaa	Gln	Ser	Xaa	Gly	Ser	Ser
							85

&lt;210&gt; 1516

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1583

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (87)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (94)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1516

Gly Arg Glu Ser Gln Asp Thr Xaa Phe Xaa Xaa Leu Val Glu Arg Val  
 1 5 10 15

Ile Gln Gln Leu Glu Gly Ala Phe Ala Leu Xaa Phe Lys Ser Val His  
 20 25 30

Phe Pro Gly Gln Ala Xaa Gly Thr Arg Arg Gly Ser Pro Leu Leu Ile  
 35 40 45

Gly Val Arg Ser Glu His Lys Leu Ser Thr Asp His Ile Pro Ile Leu  
 50 55 60

Tyr Arg Thr Gly Lys Asp Lys Lys Gly Ser Cys Asn Leu Ser Arg Val  
 65 70 75 80

1584

Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr  
85 90 95

Tyr Phe Ala Ser Asp Ala Xaa Ala Ala  
100 105

<210> 1517

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE



1585

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1517

Gly	Xaa	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Leu	Val	Ile	Arg	Gln
1				5					10					15	

Xaa	Pro	Xaa	Val	Gln	Xaa	Leu	Gln	Ala	Tyr	Lys	Pro	Arg	Glu	Asn	Asp
			20					25						30	

Xaa	Leu	Ala	Leu	Glu	Lys	Ala	Asp	Val	Val	Met	Val	Thr	His	Gln	Ser
		35					40						45		

Ser	Ala	Arg	Leu	Ala	Gly	Gly	Arg	Glu	Ala	Leu	Arg	Arg	Gly	Ala	Arg
		50				55						60			

Leu	Val	Ser	Cys	Asp	Ser	Xaa	Xaa	Ser	Ser	Phe	Pro	Thr	Gln	Arg	Ser
65						70				75					80

Val	Thr	Gln	Asn	Leu	Lys	Gly	Ser	Phe	Ile	Glu	Cys	Lys	Thr	Cys	Gln
			85						90					95	

Thr	Thr	Ala	Xaa	Gly	Asn	Ser	Lys	Pro	Xaa	Phe	Ser	Xaa	Xaa	Glu	Gly
			100					105					110		

Val	Phe	Val	Ser	Trp	Lys	Asn	Lys	Leu
		115					120	

&lt;210&gt; 1518

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1586

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1518

Arg	Gly	Pro	Ala	Gln	Arg	Gly	Glu	Gly	Ala	Arg	Glu	Ala	Asn	Lys	Lys
1				5					10					15	

Ile	Glu	Lys	Gln	Leu	Gln	Lys	Asp	Lys	Gln	Val	Tyr	Arg	Ala	Thr	His
			20					25					30		

Arg	Leu	Leu	Leu	Leu	Gly	Ala	Gly	Glu	Ser	Gly	Lys	Ser	Thr	Ile	Val
		35					40					45			

Lys	Gln	Met	Arg	Ile	Leu	His	Val	Asn	Gly	Phe	Asn	Gly	Asp	Ser	Glu
		50				55					60				

Lys	Ala	Thr	Lys	Val	Gln	Xaa	Ile	Lys	Asn	Asn	Leu	Lys	Glu	Ala	Ile
	65					70				75					80

Glu	Thr	Ile	Val	Ala	Ala	Met	Ser	Asn	Leu	Val	Pro	Pro	Val	Glu	Leu
				85					90					95	

Ala	Asn	Pro	Glu	Asn	Gln	Phe	Arg	Val	Asp	Tyr	Ile	Leu	Ser	Val	Met
		100						105				110			

Asn	Val	Pro	Asp	Phe	Xaa	Phe	Pro	Pro	Glu	Phe	Tyr	Glu	His	Ala	Lys
		115					120					125			

Ala	Leu	Trp	Xaa	Asp	Glu	Xaa	Val	Arg	Xaa	Cys	Tyr	Glu	Arg	Ser	Asn
	130						135						140		

1587

Glu Tyr  
145

<210> 1519

<211> 137

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519

Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu  
1 5 10 15

Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr  
20 25 30

Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp  
35 40 45

Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly  
50 55 60

Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu  
65 70 75 80

Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg  
85 90 95

Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu  
100 105 110

Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg  
115 120 125

Pro Ala Trp Arg Ser Thr Ser Leu Phe  
130 135

<210> 1520

<211> 100

<212> PRT

<213> Homo sapiens

1588

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1520

Cys	Arg	Lys	Ser	Ser	Trp	Lys	Arg	Trp	Trp	Pro	Gln	Ser	Lys	Leu	Xaa
1				5					10					15	

Thr	Arg	Xaa	Ile	Val	Thr	Ile	Gly	Ile	Lys	Ala	Met	Ala	Thr	Met	Asp
			20					25						30	

Ile	Thr	Ala	Lys	Val	Thr	Val	Val	Met	Glu	Asp	Met	Xaa	Tyr	Thr	Gly
		35					40						45		

Tyr	Asn	Asn	Tyr	Tyr	Gly	Tyr	Gly	Asp	Tyr	Ser	Asn	Gln	Gln	Ser	Gly
	50					55					60				

Tyr	Gly	Lys	Val	Ser	Arg	Arg	Gly	Gly	His	Gln	Asn	Ser	Tyr	Lys	Pro
65					70					75				80	

Tyr	Leu	Asn	Tyr	Ser	Ile	Cys	Asn	Leu	Ser	Pro	Thr	Gly	Gly	Glu	Ala
				85					90					95	

Tyr	Phe	Xaa	Ile
			100

&lt;210&gt; 1521

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1589

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1521

Asp	Ala	Trp	Ala	Leu	Ala	Pro	Gly	Pro	Val	Leu	Phe	Ser	Asn	Met	Val
1				5					10					15	

Cys	Leu	Lys	Phe	Pro	Gly	Ser	Ser	Cys	Met	Ala	Ala	Leu	Thr	Val	Thr
			20					25					30		

Leu	Met	Val	Leu	Asn	Ser	Pro	Leu	Ala	Leu	Ala	Gly	Asp	Thr	Arg	Pro
		35					40					45			

Arg	Phe	Leu	Glu	Gln	Val	Lys	His	Glu	Cys	His	Phe	Phe	Asn	Gly	Thr
	50					55					60				

Glu	Arg	Val	Arg	Phe	Leu	Asp	Xaa	Tyr	Phe	Tyr	His	Gln	Glu	Glu	Tyr
65					70					75				80	

Val	Arg	Phe	Asp	Ser	Asp	Val	Gly	Glu	Tyr	Arg	Ala	Val	Thr	Xaa	Leu
			85						90					95	

Gly	Arg	Pro	Asn	Ser	Glu	Tyr	Trp	Asn	Ser	Gln	Lys	Asp	Xaa	Xaa	Asp
		100						105					110		

Arg	Ser	Gly	Pro	Arg	Trp	Thr	Pro	Thr	Ala	Xaa	Thr	Leu	Arg	Gly	Trp
		115					120					125			

Val

1590

<210> 1522  
<211> 113  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (40)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (44)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (65)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

1591

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1522

Xaa	Xaa	Thr	Asp	Ser	Xaa	Arg	Pro	Asp	Ser	Arg	Val	Asp	Pro	Arg	Val
1				5					10					15	

Arg	Glu	Val	Thr	Asp	Tyr	Ala	Ile	Ala	Arg	Arg	Ile	Val	Asp	Leu	His
			20					25					30		

Ser	Arg	Ile	Glu	Glu	Ser	Ile	Xaa	Asn	Ile	Tyr	Xaa	Leu	Asp	Asp	Ile
		35					40					45			

Arg	Arg	Tyr	Leu	Xaa	Tyr	Ala	Arg	Lys	Xaa	Lys	Pro	Lys	Asn	Ser	Lys
		50				55					60				

Xaa	Ser	Xaa	Asp	Phe	Ile	Val	Glu	Gln	Xaa	Lys	His	Leu	Arg	Pro	Xaa
65					70					75				80	

Asp	Gly	Phe	Trp	Ser	Ser	Pro	Val	Phe	Xaa	Glu	Gly	Xaa	Ser	Cys	Gly
				85					90					95	

Xaa	Ile	Glu	Gly	Leu	Gly	Ser	Val	Ser	Leu	Gly	Ser	Gln	Xaa	Leu	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1592

100

105

110

Val

&lt;210&gt; 1523 .

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa

1

5

10

15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn

20

25

30

&lt;210&gt; 1524

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys Ser Leu Asn Arg Asp Leu Tyr

1

5

10

15

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

20

25

&lt;210&gt; 1525

&lt;211&gt; 92

&lt;212&gt; PRT



1593

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1525

Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr

1

5

10

15

1594

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro  
                   20                  25                  30  
 Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro  
                   35                  40                  45  
 Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly  
                   50                  55                  60  
 Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa  
                   65                  70                  75                  80  
 Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa  
                                   85                                  90

&lt;210&gt; 1526

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1526

Xaa Glu Pro Ser Pro Gly Ile Phe Arg Trp Phe His Leu Val Asn Arg  
           1                  5                  10                  15  
 Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe  
                   20                  25                  30  
 Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu  
                   35                  40                  45  
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys  
           50                  55                  60  
 Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg  
           65                  70                  75                  80  
 Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser  
                   85                  90                  95

1595

Gly Tyr Asn Thr Tyr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val  
                   100                  105                  110

Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu  
                   115                  120                  125

Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met  
                   130                  135                  140

Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr  
                   145                  150

<210> 1527

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1527

Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp  
                   1                  5                  10                  15

Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys  
                   20                  25                  30

Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp  
                   35                  40                  45

Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg  
                   50                  55                  60

1596

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly  
65 70 75 80

Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp  
85 90 95

Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe  
100 105 110

Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile  
115 120 125

Xaa Leu His Leu Xaa Xaa Ile  
130 135

<210> 1528

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1528

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu  
20 25 30

Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr  
35 40 45

Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val  
50 55 60

Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu  
65 70 75 80

Thr Leu Leu Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala  
85 90 95

1597

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala  
 100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn  
 115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala  
 130 135

&lt;210&gt; 1529

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn  
 1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu  
 20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln  
 35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys  
 50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp  
 65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln  
 85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val  
 100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser  
 115 120 125

Leu Glu Ile Asp Leu Gly Leu  
 130 135

&lt;210&gt; 1530

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1598

&lt;400&gt; 1530

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg  
1 5 10 15

Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly  
20 25 30

Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser  
35 40 45

Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val  
50 55 60

Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu  
65 70 75 80

Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser  
85 90 95

Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu  
100 105 110

Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg  
115 120 125

Phe Ser Thr Gly  
130

&lt;210&gt; 1531

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1599

<220>  
 <221> SITE  
 <222> (61)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (75)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (94)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1531  
 Arg Lys Arg Leu Lys Gly Glu Glu Gln Lys Leu Leu Arg Asn Ala Arg  
 1 5 10 15  
 Arg Xaa Gln Lys Met Ala Cys Gln Met Thr Xaa Asn His Ser Ser Val  
 20 25 30  
 Ser Xaa Leu Lys Gly Ser Ser Leu Gln Asp Arg Arg Ala Ser Arg Phe  
 35 40 45  
 Leu Ile Lys Ser Val Gln Lys Ser Ser Gly Val Gln Xaa Asp Pro Ser  
 50 55 60  
 Ser Ser Ile Ser Xaa Pro Ser Leu Thr Ala Xaa Trp Ser Xaa Leu Pro  
 65 70 75 80  
 Trp His Leu Arg Gly Pro Lys Ala Ala Lys Thr Leu Lys Xaa  
 85 90

<210> 1532  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

1600

&lt;400&gt; 1532

Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser  
 1 5 10 15

Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr  
 20 25 30

Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg  
 35 40 45

Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Gly Leu Leu Met Leu  
 50 55 60

Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly  
 65 70 75 80

Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser  
 85 90 95

Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile  
 100 105 110

Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu  
 115 120 125

Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser  
 130 135 140

Gly Tyr Leu His Met Val Arg Val His  
 145 150

&lt;210&gt; 1533

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1533

Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser  
 1 5 10 15

Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val  
 20 25 30

Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly  
 35 40 45

Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser  
 50 55 60



1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys  
 65 70 75 80  
 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro  
 85 90 95  
 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile  
 100 105 110  
 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu  
 115 120 125  
 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile  
 130 135 140

&lt;210&gt; 1534

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1534

Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile  
 1 5 10 15  
 Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile  
 20 25 30  
 Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa  
 35 40 45

1602

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met  
 50 55 60

Lys Asp Leu  
 65

<210> 1535  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1535  
 Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr  
 1 5 10 15

Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met  
 20 25 30

Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe  
 35 40 45

Phe His Cys Ile Leu Val Val Val Cys Pro Asn Ser Ser Met Tyr Leu  
 50 55 60

Ile Met Ser Gly Ser Ile Leu His  
 65 70

<210> 1536  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (20)  
 <223> Xaa equals any of the naturally occurring L-amino acids

1603

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1536

Gly	Lys	Ala	Trp	Gly	Ser	Glu	Cys	Glu	Lys	Cys	Pro	Leu	Pro	Gly	Thr
1				5					10					15	

Glu	Ala	Phe	Xaa	Glu	Ile	Cys	Pro	Ala	Gly	His	Gly	Tyr	Thr	Tyr	Ala
				20					25					30	

Ser	Ser	Asp	Ile	Arg	Leu	Ser	Met	Arg	Lys	Ala	Glu	Xaa	Glu	Glu	Leu
									40					45	

Ala	Xaa	Pro	Pro	Arg	Glu	Gln	Gly	Gln	Xaa	Ser	Ser	Trp	Ala	Leu	Pro
														60	

Gly	Pro	Thr	Xaa	Lys	Gln	Pro	Leu	Arg	Val	Arg	His	Gly	His	Leu	Ala
65							70					75			80

&lt;210&gt; 1537

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1604

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1537

Arg	Lys	Gln	Cys	Gln	Asp	Ser	Lys	Asp	Ser	Asn	His	Leu	Pro	Lys	Met
1				5						10				15	

Ser	Leu	Ser	Ala	Phe	Thr	Leu	Phe	Leu	Ala	Leu	Ile	Gly	Gly	Thr	Ser
			20					25					30		

Gly	Gln	Tyr	Tyr	Asp	Tyr	Asp	Phe	Pro	Leu	Ser	Ile	Tyr	Gly	Gln	Ser
		35					40						45		

Ser	Pro	Asn	Cys	Ala	Pro	Glu	Cys	Asn	Xaa	Pro	Glu	Ser	Tyr	Pro	Ser
		50					55					60			

Ala	Met	Tyr	Cys	Asp	Glu	Leu	Lys	Leu	Xaa	Ser	Val	Pro	Met	Val	Pro
	65					70				75					80

Pro	Gly	Ile	Lys	Tyr	Leu	Tyr	Leu	Arg	Asn	Asn	Gln	Ile	Asp	His	Ile
					85				90					95	

Asp	Glu	Lys	Ala	Phe	Glu	Asn	Val	Thr	Asp	Leu	Gln	Trp	Leu	Ile	Leu
			100						105				110		

Asp	His	Asn	Leu	Leu	Glu	Asn	Ser	Lys	Xaa	Lys	Gly	Arg	Val	Phe	Ser
			115					120				125			

1605

Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa  
 130 135

<210> 1538

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1538

Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu  
 1 5 10 15

Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp  
 20 25 30

Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr  
 35 40 45

Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys  
 50 55 60

Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys  
 65 70 75 80

Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu  
 85 90 95

Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu  
 100 105 110

Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu  
 115 120 125

Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu  
 130 135 140

1606

<210> 1539  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1539  
 Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn  
           1                  5                  10                  15  
 Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala  
                   20                  25                  30  
 Glu Glu Xaa Ala Lys Lys Lys Arg Arg Lys Lys Lys Lys Ser Lys Gly  
                   35                  40                  45  
 Pro Ser Ala Gly Lys Glu Ser Phe Met Phe Ser Gln Ser Pro Pro Gly  
           50                  55                  60  
 Thr Ala Glu Leu Phe Gly Ser Gly Pro Leu Arg Gly Pro Gly Pro Gly  
           65                  70                  75                  80  
 Pro Gln Ser Pro Asp  
                   85

<210> 1540  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (18)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (22)

1607

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1540

Gly Val Gly Phe Arg Glu Gly Thr Xaa Gly Ala Gln Thr Gln Arg Ile  
1 5 10 15

Arg Xaa Arg Val Pro Xaa Asn Trp Lys Met Xaa Phe Glu Pro Ile Ser  
20 25 30

Ser Thr Lys Phe  
35

<210> 1541

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1608

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1541

Arg	Thr	Xaa	Ala	Xaa	Gly	Glu	Arg	Ala	Cys	Arg	Ser	Thr	Leu	Val	Asp
1				5					10					15	

Pro	Lys	Xaa	Val	Xaa	Thr	Val	Phe	Ser	Leu	Gly	Ala	Cys	Met	Glu	Gly
			20					25					30		

Leu	Asn	Ile	Leu	Leu	Asn	Arg	Leu	Leu	Gly	Ile	Ser	Leu	Tyr	Ala	Glu
	35						40					45			

Gln	Pro	Ala	Lys	Gly	Glu	Val	Trp	Ser	Glu	Asp	Val	Arg	Lys	Leu	Ala
	50					55					60				

Val	Val	His	Glu	Ser	Glu	Gly	Leu	Leu	Gly	Tyr	Ile	Tyr	Cys	Asp	Phe
65					70					75					80

Phe	Gln	Arg	Ala	Asp	Lys	Pro	His	Gln	Asp	Cys	His	Phe	Thr	Ile	Arg
				85					90					95	

Gly	Gly	Arg	Leu	Lys	Gly	Arg	Trp	Glu	Thr	Xaa	Gln	Leu	Pro	Val	Val
			100					105					110		

Ser	Ser	Tyr	Ala	Gly	Ile	Phe	Pro	Val	Pro	Xaa	Arg	Glu	Phe	Ser	Asn
			115				120					125			

Phe	Gly	Xaa	Xaa	Leu	Gly	Met	Met	Gly	Lys	Pro	Phe	Pro	Gly	Xaa	Gly
	130					135					140				



1609

&lt;210&gt; 1542

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1542

Ala Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro  
 1 5 10 15

Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His  
 20 25 30

Leu Thr Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg  
 35 40 45

Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val  
 50 55 60

Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly  
 65 70 75 80

Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp  
 85 90 95

Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys Leu Val Gln Asp Val  
 100 105 110

Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr  
 115 120 125

Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe Glu Lys Ile Ser Lys  
 130 135 140

Gly

145

&lt;210&gt; 1543

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1543

Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu  
 1 5 10 15

1610

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val  
20 25 30

Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val  
35 40 45

Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly  
50 55 60

Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly  
65 70 75 80

Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu  
85 90 95

Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg  
100 105 110

Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln  
115 120 125

Ser Lys Pro Val Thr Thr Pro  
130 135

&lt;210&gt; 1544

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1611

&lt;400&gt; 1544

Cys Glu Phe Lys Arg Val Pro Gln Cys Pro Ser Gly Arg Val Tyr Val  
1 5 10 15

Leu Lys Phe Lys Ala Gly Ser Lys Arg Leu Phe Phe Trp Met Gln Glu  
20 25 30

Pro Lys Thr Asp Gln Asp Glu Glu His Cys Arg Lys Val Asn Glu Leu  
35 40 45

Ser Gly Thr Thr Pro Arg Cys Leu Gly His Trp Gly Pro Ala Glu Gln  
50 55 60

Arg Pro Arg Xaa Leu Cys Ala Xaa Arg Leu Arg Trp Xaa Ala Glu Xaa  
65 70 75 80

Ala Gly Glu Thr

&lt;210&gt; 1545

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1545

Tyr Leu Arg Leu Ile Tyr Ser Thr Ser Ile Thr Leu Leu Pro Ile Ser  
1 5 10 15

Asn Asn Val Lys Ile Lys  
20

&lt;210&gt; 1546

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1612

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (64)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (85)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (100)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1613

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1546

Pro Ser Ala Ala Ala Gly Asp Leu Gln Arg Thr Ala Ala Met Gly Ala  
 1 5 10 15

His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Xaa Pro Asp Pro  
 20 25 30

Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro Glu Arg Lys  
 35 40 45

Xaa Arg Xaa Met Val Ala Thr Xaa Xaa Xaa Met Met Asp Ala His Xaa  
 50 55 60

Ser Ser Xaa Cys Gly Xaa Thr Ala Pro Thr Asn Ser Ser Gly Cys Ser  
 65 70 75 80

Ile Xaa Thr Leu Xaa Leu Pro Pro Leu Pro Trp Leu Ala Asn Gln Glu  
 85 90 95

Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro  
 100 105 110

1614

&lt;210&gt; 1547

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1547

Lys Val Ser Ala Val Met Ala Phe Leu Ala Ser Gly Pro Tyr Leu Thr  
 1 5 10 15

His Gln Gln Lys Val Leu Arg Leu Tyr Lys Arg Ala Leu Arg His Leu  
 20 25 30

Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr Arg Tyr Phe Ala Cys Leu  
 35 40 45

Met Arg Ala Arg Phe Glu Glu His Lys Asn Glu Lys Asp Met Ala Lys  
 50 55 60

Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Phe Trp Tyr Arg Gln  
 65 70 75 80

His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Pro Gly Gly Thr Ser Tyr  
 85 90 95

Glu Arg Tyr Asp Cys Tyr Lys Val Pro Glu Trp Cys Leu Asp Asp Trp  
 100 105 110

His Pro Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu  
 115 120 125

Gln Trp Lys Lys Leu Arg Glu Gly Lys Leu Gly Thr Arg Gly  
 130 135 140

&lt;210&gt; 1548

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1615

<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (22)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (32)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (36)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (62)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (65)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1616

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1548

Leu	Tyr	Tyr	Xaa	Leu	Gly	Phe	Leu	Xaa	Leu	Xaa	Xaa	Arg	Leu	Pro	Leu
1				5					10					15	

Asp	Ala	Ala	Lys	Arg	Xaa	His	Asp	Glu	Leu	Gly	Asn	Glu	Arg	Pro	Xaa
			20					25					30		

Ala	Tyr	Met	Xaa	Glu	His	Asn	Gln	Leu	Asn	Gly	Trp	Xaa	Ser	Asp	Glu
		35					40					45			

Asn	Asp	Trp	Asn	Glu	Lys	Leu	Tyr	Pro	Val	Trp	Lys	Arg	Xaa	Asp	Met
	50				55						60				

Xaa	Xaa	Glu	Lys	Leu	Leu	Glu	Gly	Arg	Pro	Val	Cys	Lys	Ala	Val	Leu
65				70						75					80

Thr	Xaa	Asp	Xaa	Pro	Thr	Leu	Gly	Gly	Leu	Lys	Xaa	Asn	Ile	Xaa	Arg
				85					90					95	

Xaa Thr

&lt;210&gt; 1549

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



1617

<220>  
<221> SITE  
<222> (60)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (73)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (122)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (123)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (128)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (136)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1549

Gly Cys Ser Leu Glu Gln Arg Ser Phe Ile Ser Val Arg Leu Leu Ser  
1 5 10 15

Tyr Leu Ser Ala Cys Arg His Pro Met Glu Asp Ser Met Asp Met Asp  
20 25 30

Met Ser Pro Leu Arg Pro Gln Asn Tyr Leu Phe Gly Cys Glu Leu Lys  
35 40 45

Ala Asp Lys Asp Tyr His Phe Lys Val Asp Asn Xaa Glu Asn Glu His  
50 55 60

Gln Leu Ser Leu Arg Thr Val Xaa Xaa Gly Ala Gly Ala Lys Asp Glu  
65 70 75 80

1618

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile  
85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe  
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa  
115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln  
130 135

&lt;210&gt; 1550

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1550

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro  
1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys  
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu  
35 40 45

Thr Pro Cys  
50

&lt;210&gt; 1551

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1619

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1551

Lys	Ala	Xaa	Ser	Val	Xaa	Leu	Tyr	Lys	Val	Arg	Leu	Gln	Val	Pro	Val
1				5					10					15	

Arg	Asn	Ser	Arg	Val	Asp	Pro	Arg	Val	Arg	Xaa	Gly	Gly	Glu	Gln	Val
			20					25						30	

Ser	Ser	Thr	Ile	Xaa	Gly	Leu	Ser	Gly	Pro	Pro	Ser	Arg	Arg	Gly	Pro
		35						40					45		

Phe	Pro	Leu	Ala	Trp	Val	Ile	Leu	Phe	Leu	Leu	Glu	Ala	Gln	Xaa	Gly
		50					55					60			

Pro	Trp	Xaa	Leu	Leu	Pro	Ser	Ala	His
		65					70	

&lt;210&gt; 1552

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1620

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (119)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1552

Asn Ser Ala Xaa Xaa Glu Leu Leu Thr Gln Pro Gly Asp Trp Thr Leu  
1 5 10 15

Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys  
20 25 30

Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr  
35 40 45

His Leu His Gln Glu Phe Ser Leu Glu Lys Asp Leu Asn Leu Val Leu  
50 55 60

Leu Thr Phe Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Glu Gly  
65 70 75 80

1621

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa  
                             85                            90                            95

Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu  
                             100                            105                            110

Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly  
                             115                            120                            125

Xaa Asp Thr  
                             130

<210> 1553

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1553

Trp Ile Xaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met  
       1                            5                            10                            15

Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys  
                             20                            25                            30

Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu  
                             35                            40                            45

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

1622

50                                      55                                      60  
 His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp  
 65                                      70                                      75                                      80  
 Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser  
                                     85                                      90                                      95  
 Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp  
                                     100                                      105

&lt;210&gt; 1554

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1554

Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys  
 1                                      5                                      10                                      15

Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr  
                                     20                                      25                                      30

Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser  
                                     35                                      40                                      45

Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala  
                                     50                                      55                                      60

Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe  
 65                                      70                                      75                                      80

Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His  
                                     85                                      90                                      95

Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val  
                                     100                                      105                                      110

Phe Ala Cys Trp Thr  
                                     115

&lt;210&gt; 1555

1623

<211> 164  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (125)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1555

Glu Lys Lys Val Glu Arg Gln Thr Glu Leu Lys Arg Lys Phe Glu Gln  
 1 5 10 15

Met Lys Gln Asp Arg Ile Thr Arg Tyr Gln Gly Val Asn Leu Tyr Val  
 20 25 30

Lys Asn Leu Asp Asp Gly Ile Asp Asp Glu Arg Leu Arg Lys Glu Phe  
 35 40 45

Ser Pro Phe Gly Thr Ile Thr Ser Ala Lys Val Met Met Glu Gly Gly  
 50 55 60

Arg Ser Lys Gly Phe Gly Phe Val Cys Phe Ser Ser Pro Glu Xaa Ala  
 65 70 75 80

Thr Lys Ala Val Thr Xaa Met Asn Gly Arg Ile Val Ala Thr Lys Pro  
 85 90 95

Leu Tyr Val Ala Leu Ala Gln Arg Lys Glu Glu Arg Gln Ala His Leu  
 100 105 110

Thr Asn Gln Tyr Met Gln Arg Met Ala Ser Val Arg Xaa Val Pro Asn  
 115 120 125

Pro Val Ile Asn Pro Tyr Gln Pro Ala Pro Pro Ser Gly Tyr Phe Met  
 130 135 140

Ala Ala Ile Pro Gln Thr Gln Asn Val Leu His Thr Ile Leu Leu Ala  
 145 150 155 160

Lys Leu Leu Asn

1624

<210> 1556  
<211> 166  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE



1625

&lt;222&gt; (150)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1556

Xaa	Xaa	Leu	Thr	Leu	Thr	Xaa	Gly	Xaa	Lys	Xaa	Xaa	Xaa	Xaa	Thr	Ala
1				5					10					15	

Val	Ala	Ala	Ala	Leu	Ala	Thr	Ser	Gly	Ser	Pro	Gly	Pro	Val	Arg	Asn
			20					25					30		

Ser	Ala	Arg	Ala	Gly	Thr	Ser	Glu	Phe	Leu	Asn	Lys	Val	Thr	Glu	Ala
		35						40				45			

Gln	Glu	Asp	Gly	Gln	Ser	Thr	Ser	Glu	Leu	Ile	Gly	Gln	Phe	Gly	Val
	50					55					60				

Gly	Phe	Tyr	Ser	Ala	Phe	Leu	Val	Ala	Asp	Lys	Val	Ile	Val	Thr	Ser
65					70					75					80

Lys	His	Asn	Asn	Asp	Thr	Gln	His	Ile	Trp	Glu	Ser	Asp	Ser	Asn	Glu
				85					90					95	

Phe	Ser	Val	Ile	Ala	Asp	Pro	Arg	Gly	Asn	Thr	Leu	Gly	Arg	Gly	Thr
			100					105					110		

Thr	Ile	Thr	Leu	Val	Leu	Lys	Glu	Glu	Ala	Ser	Asp	Tyr	Leu	Glu	Leu
		115					120					125			

Asp	Thr	Ile	Lys	Asn	Leu	Val	Lys	Lys	Tyr	Ser	Gln	Phe	Ile	Asn	Phe
	130					135					140				

Pro	Ile	Tyr	Val	Trp	Xaa	Ser	Lys	Thr	Glu	Thr	Val	Xaa	Glu	Pro	Met
145					150					155				160	

Glu	Glu	Glu	Gly	Ala	Ala
				165	

&lt;210&gt; 1557

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1626

<222> (1)  
<223> xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (83)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (90)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (97)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (103)

1627

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1557

Xaa	Asn	Val	Val	Glu	Ala	Gln	Phe	Asp	Ser	Arg	Val	Arg	Ala	Thr	Gly
1				5					10					15	

His	Ser	Xaa	Xaa	Xaa	Tyr	Asn	Lys	Trp	Glu	Thr	Ile	Glu	Ala	Trp	Thr
		20						25						30	

Gln	Gln	Val	Ala	Thr	Xaa	Asn	Pro	Ala	Leu	Ile	Ser	Arg	Ser	Val	Ile
		35					40					45			

Gly	Thr	Thr	Phe	Glu	Gly	Arg	Ala	Ile	Tyr	Leu	Leu	Lys	Val	Gly	Lys
	50					55					60				

Ala	Gly	Gln	Asn	Lys	Pro	Ala	Ile	Phe	Met	Asp	Cys	Gly	Phe	Pro	Met
65					70					75				80	

Pro	Xaa	Xaa	Trp	Ile	Ser	Pro	Cys	Ile	Xaa	Pro	Val	Gly	Phe	Xaa	Lys
			85						90					95	

1628

Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe  
                   100                  105                  110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr  
                   115                  120                  125

<210> 1558

<211> 109

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1558

Lys Ala Gly Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val  
   1                  5                  10                  15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro  
                   20                  25                  30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly  
                   35                  40                  45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro  
                   50                  55                  60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa  
   65                  70                  75                  80

Val Tyr Leu Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile  
                   85                  90                  95

1629

Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg  
 100 105

&lt;210&gt; 1559

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr  
 1 5 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile  
 20 25 30

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala  
 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val  
 50 55 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val  
 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser  
 85 90 95

Val Ala Gly Ile Thr Phe  
 100

&lt;210&gt; 1560

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln  
 1 5 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp  
 20 25 30

1630

Lys Pro Arg Pro Met Pro Met Asp Thr Ser Val Tyr Glu Ser Pro Tyr  
 35 40 45

Sér Asp Pro Glu Glu Leu Lys Asp Lys Lys Leu Phe Leu Lys Arg Asp  
 50 55 60

Asn Leu Leu Ile Ala Asp Ile Glu Leu Gly Cys Gly Asn Phe Gly Ser  
 65 70 75 80

Val Arg Gln Gly Val Tyr Arg Met Arg Lys Lys Gln Ile Asp Val Ala  
 85 90 95

Ile Lys Val Leu Lys Gln Gly Thr Glu Lys Ala Asp Thr Glu Glu Met  
 100 105 110

Met Arg Glu Ala Gln Ile Met His Gln Leu Asp Asn Pro Tyr Ile Val  
 115 120 125

Arg Leu Ile Gly Val Cys Gln Ala Glu Ala Leu Met Leu Val Met Glu  
 130 135 140

Met Xaa Gly Ala Gly Ala Ala Gln Val Pro Gly Arg Gln Glu Gly  
 145 150 155

<210> 1561

<211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1561

Arg Ala His Glu Asn Glu Ile Thr Lys Val Arg Lys Val Thr Phe Asn  
 1 5 10 15

Gly Leu Asn Gln Met Ile Val Ile Glu Leu Gly Thr Asn Pro Leu Lys  
 20 25 30

Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser  
 35 40 45

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu  
 50 55 60  
 Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg  
 65 70 75 80  
 Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly  
 85 90 95  
 Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn  
 100 105 110  
 Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg  
 115 120 125  
 Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu  
 130 135 140  
 His Asn Asn His Ile Ser Val Val Gly Ser Lys  
 145 150 155

&lt;210&gt; 1562

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1562

Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr  
 1 5 10 15  
 Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu  
 20 25 30  
 Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly  
 35 40 45  
 Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys  
 50 55 60  
 Lys Pro Ile Asp Trp Lys Glu Leu  
 65 70

1632

<210> 1563  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1563  
 Arg Thr Arg Gly Arg Leu Leu Gly His Leu Lys Glu Thr Trp Gly His  
           1                  5                  10                  15  
 Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg Arg Cys Arg His Cys  
                   20                  25                  30  
 Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser  
           35                  40                  45  
 Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn  
           50                  55                  60  
 Phe Ala Asn Asp Ala Thr Phe Glu Ile Xaa Lys Cys Asp Leu His Arg  
           65                  70                  75                  80  
 Leu Glu Glu Ala Leu Leu Ser Gln Gln Cys Ser Pro Arg Glu Asp Gly  
                   85                  90                  95  
 Leu Lys Tyr Tyr Arg Met Met Xaa Thr Val Pro Glu Trp Asn  
           100                  105                  110

<210> 1564  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>



1633

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (94)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1564

Leu	His	Ser	Xaa	Cys	Thr	Arg	Arg	Gly	Ser	Gly	Ser	Leu	Arg	Leu	Cys
1				5				10				15			

Ser	Val	Ala	Arg	Val	Gly	Gln	Arg	Arg	Met	Thr	Ser	Ala	Ala	Met	Ser
			20					25					30		

Lys	Pro	His	Ser	Glu	Xaa	Gly	Thr	Ala	Phe	Ile	Gln	Thr	Gln	Xaa	Leu
			35					40					45		

His	Ala	Xaa	Met	Ala	Asp	Thr	Phe	Leu	Glu	His	Met	Xaa	Arg	Leu	Asp
			50				55					60			

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr  
 65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp  
 85 90 95

<210> 1565

<211> 50

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1565

Pro Thr Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly  
 1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe  
 20 25 30

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His  
 35 40 45

Xaa Gly  
 50

<210> 1566

<211> 161

1635

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1566

Ala Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg  
 1 5 10 15

Thr Gln Gly Thr Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe  
 20 25 30

Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys  
 35 40 45

Phe Lys Leu Ile Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn  
 50 55 60

Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys  
 65 70 75 80

Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp  
 85 90 95

Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys Lys Arg Asn  
 100 105 110

Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln Val Arg Gln  
 115 120 125

Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val Gln Thr Asn  
 130 135 140

Asp Leu Lys Glu Val Val Asn Lys Leu Ile Xaa Asp Ala Leu Glu Lys  
 145 150 155 160

Thr

&lt;210&gt; 1567

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

1	5	10	15
Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro			
20	25	30	
Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile			
35	40	45	
Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys			
50	55	60	
Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg			
65	70	75	80
Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala			
85	90	95	
Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu			
100	105	110	

Lys

&lt;210&gt; 1568

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1568

Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys
1 5 10 15

Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His
20 25 30

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser  
35 40 45

Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala  
100 105 110

1638

Gly Ala Val Asn Gln Cys Asn Gly  
           115                  120

&lt;210&gt; 1570

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1570

Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr  
   1                  5                  10                  15

Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile  
           20                  25                  30

Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala  
           35                  40                  45

Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly  
           50                  55                  60

Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser  
   65                  70                  75                  80

His Gly Leu Arg Lys  
           85

&lt;210&gt; 1571

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1639

&lt;400&gt; 1571

Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr  
1 5 10 15

Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr  
20 25 30

Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met  
35 40 45

Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr  
50 55 60

Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn  
65 70 75 80

Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile  
85 90 95

Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val  
100 105 110

Lys Glu Asn Asp Gln Lys Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp  
115 120 125

Val Gln Leu Lys Arg Xaa Pro  
130 135

&lt;210&gt; 1572

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1640

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1572

Thr	Ala	Thr	Pro	Ala	Asn	Xaa	Xaa	Leu	Pro	Trp	Gly	Xaa	Lys	Lys	Xaa
1					5				10					15	

Ala	Arg	Arg	Ser	Lys	Ile	Xaa	Ser	Phe	Val	Xaa	Val	Cys	Xaa	Tyr	Asn
				20				25						30	



1641

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys  
                   35                  40                  45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg  
                   50                  55                  60

Xaa Ala Arg Arg Xaa Pro Arg  
                   65                  70

<210> 1573

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met  
                   1                  5                  10                  15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr  
                   20                  25                  30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr  
                   35                  40                  45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp  
                   50                  55                  60

Gly Lys Xaa Val  
                   65

<210> 1574

<211> 127

1642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1574

Gly Arg Met Xaa Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg

1

5

10

15

Ser Ala Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His

20

25

30

Lys Arg Ile His Gly Val Gly Phe Lys Lys Arg Ala Pro Arg Ala Leu

35

40

45

Lys Glu Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val

50

55

60

Arg Ile Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg

65

70

75

80

Asn Val Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu

85

90

95

Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro

100

105

110

Val Thr Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn

115

120

125

&lt;210&gt; 1575

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1643

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1575

Trp Phe Pro Arg Ala Ala Gly Phe Arg His Xaa Xaa Val Gln Ile Arg

1

5

10

15

Ala Xaa Glu Arg Lys Gly Thr Ser Ser Phe Gly Lys Xaa Arg Asn Lys

20

25

30

Thr His Thr Leu Cys Arg Arg Xaa Gly Ser Lys Ala Tyr His Leu Gln

35

40

45

Xaa Ser Thr Cys Gly Lys Phe Gly Tyr Pro Ala Lys Arg Lys Arg Lys

50

55

60

Xaa Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly

65

70

75

80

Arg Xaa Arg His Leu Lys Phe Val Tyr Arg Arg Phe Arg His Gly Phe

1644

	85		90		95										
Xaa	Glu	Gly	Thr	Thr	Pro	Lys	Pro	Lys	Arg	Ala	Ala	Val	Ala	Ala	Ser
	100						105						110		
Ser	Ser	Ser													
	115														

&lt;210&gt; 1576

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1576

Gly	Arg	Arg	Ser	Glu	Met	Thr	Lys	Gly	Thr	Ser	Ser	Phe	Gly	Lys	Arg
1				5				10						15	

Arg	Asn	Lys	Thr	His	Thr	Leu	Cys	Arg	Arg	Cys	Gly	Ser	Lys	Ala	Tyr
		20						25					30		

His	Leu	Gln	Lys	Ser	Thr	Cys	Gly	Lys	Cys	Gly	Tyr	Pro	Ala	Lys	Arg
		35					40						45		

Lys	Arg	Lys	Tyr	Asn	Trp	Ser	Ala	Lys	Ala	Lys	Arg	Arg	Asn	Thr	Thr
	50					55					60				

Gly	Thr	Gly	Arg	Met	Arg	His	Leu	Lys	Ile	Val	Tyr	Arg	Arg	Phe	Arg
65					70					75				80	

His	Gly	Phe	Arg	Glu	Gly	Thr	Thr	Pro	Lys	Pro	Lys	Arg	Ala	Ala	Val
				85					90					95	

Ala	Ala	Phe	Gln	Phe	Ile	Phe	Lys	Asn	Val	Asn	Xaa	Phe	Ser	His	Ala
			100					105					110		

1645

Ile Xaa Cys Xaa Gly Val Leu Lys Asn  
           115                          120

&lt;210&gt; 1577

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1577

Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys  
       1                  5                  10                  15

Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser  
                   20                  25                  30

Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His  
           35                  40                  45

Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa  
       50                  55                  60

&lt;210&gt; 1578

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1646

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1578

Glu	Leu	Gly	Lys	Gly	Lys	Met	Glu	Lys	Pro	Ser	Pro	Tyr	Pro	Ala	Gln
1				5					10					15	

Gly	Pro	Cys	Ile	Ile	Tyr	Asn	Glu	Asp	Asn	Gly	Ile	Ile	Lys	Ala	Phe
			20						25					30	

Gln	Lys	His	Pro	Trp	Asn	Tyr	Ser	Ala	Xaa	Met	Xaa	Ser	Lys	Leu	Lys
			35						40					45	

His	Phe	Xaa	Ser	Leu	Leu	Pro	Gly	Gly	Ala	Cys	Gly	Asp	Val	Xaa	Gly
			50						55					60	

Ile	Gly	Xaa	Glu	Met	Ala	Phe	Pro	Gly	Xaa
									70

&lt;210&gt; 1579

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

1647

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1579

Ser	Xaa	Met	Ala	Cys	Ala	Arg	Pro	Leu	Ile	Ser	Val	Tyr	Ser	Glu	Lys
1				5					10					15	

Gly	Glu	Ser	Ser	Gly	Lys	Asn	Val	Thr	Leu	Pro	Ala	Val	Phe	Lys	Ala
			20					25						30	

Pro	Ile	Arg	Pro	Asp	Ile	Val	Asn	Phe	Val	His	Thr	Asn	Leu	Arg	Lys
		35					40					45			

Asn	Asn	Arg	Gln	Pro	Tyr	Ala	Val	Ser	Glu	Leu	Ala	Gly	His	Gln	Thr
		50				55					60				

Ser	Ala	Glu	Ser	Trp	Gly	Thr	Gly	Arg	Ala	Val	Ala	Arg	Ile	Pro	Arg
65					70					75				80	

Xaa	Arg	Gly	Gly	Gly	Thr	Xaa	Arg	Ser	Gly	Xaa	Gly	Ala	Phe	Gly	Asn
			85						90					95	

Met Cys

<210> 1580

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

1648

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1580

Leu	Ser	Leu	Xaa	Gly	Lys	Lys	Lys	Lys	Arg	Leu	Arg	Val	Asp	Lys	Trp
1				5					10					15	

Trp	Gly	Xaa	Arg	Lys	Glu	Leu	Ala	Thr	Val	Arg	Thr	Ile	Cys	Ser	His
			20					25					30		

Val	Gln	Asn	Met	Ile	Lys	Gly	Val	Thr	Leu	Gly	Phe	Arg	Tyr	Lys	Met
		35					40					45			

Arg	Xaa	Val	Tyr	Ala	His	Xaa	Pro	Ile	Asn	Val	Val	Ile	Gln	Glu	Xaa
	50					55						60			

Gly	Ser	Ile	Val	Glu	Ile	Xaa	Xaa
65					70		

&lt;210&gt; 1581

&lt;211&gt; 153

&lt;212&gt; PRT



1649

&lt;213&gt; Homo sapiens

&lt;400&gt; 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser  
1 5 10 15

Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser  
20 25 30

Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr  
35 40 45

Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln  
50 55 60

Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys  
65 70 75 80

Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys  
85 90 95

Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp  
100 105 110

Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala  
115 120 125

Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu  
130 135 140

Ser Ser Thr Ala Ser Ala Leu Val Ala  
145 150

&lt;210&gt; 1582

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala  
1 5 10 15

Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe  
20 25 30

His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys  
35 40 45

Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

50                      55                      60  
 Ile Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu  
 65                      70                      75                      80  
 Glu Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp  
                     85                      90                      95  
 Gln Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu  
                     100                      105                      110  
 Leu Asp Phe Gly Ser Leu Ser Asn Leu Gln Ser Leu Ser Leu Gln Leu  
                     115                      120                      125  
 Gly

<210> 1583  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1583  
 Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg  
   1                      5                      10                      15  
 Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys  
                     20                      25                      30  
 Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser  
                     35                      40                      45  
 Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys  
                     50                      55                      60  
 Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile  
   65                      70                      75                      80  
 Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp  
                     85                      90                      95  
 Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met  
                     100                      105

<210> 1584  
 <211> 119  
 <212> PRT

1651

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1584

Val Gln Arg Phe Ile Lys Ile Asp Gly Lys Val Arg Thr Asp Ile Thr  
1 5 10 15

Tyr Pro Ala Gly Phe Met Asp Val Ile Ser Ile Asp Lys Thr Gly Glu  
20 25 30

Asn Phe Arg Leu Ile Tyr Asp Thr Lys Gly Arg Phe Ala Val His Arg  
35 40 45

Ile Thr Pro Glu Glu Ala Lys Tyr Lys Leu Cys Xaa Val Arg Lys Ile  
50 55 60

Phe Val Gly Thr Lys Gly Ile Pro His Leu Val Thr His Asp Ala Arg  
65 70 75 80

Thr Ile Arg Tyr Pro Asp Pro Leu Ile Lys Val Asn Asp Pro Phe Ile  
85 90 95

Leu Ile Xaa Arg Leu Ala Arg Leu Leu Ile Ser Ser Ile Ser Thr Leu  
100 105 110

Val Thr Cys Val Trp Xaa Leu  
115

&lt;210&gt; 1585

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1652

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1585

Gly	Arg	Tyr	Ala	Ala	Lys	Arg	Phe	Arg	Lys	Ala	Gln	Cys	Xaa	Ile	Val
1				5					10					15	

Glu	Arg	Leu	Thr	Asn	Ser	Met	Met	Met	Xaa	Gly	Arg	Asn	Asn	Gly	Lys
			20					25						30	

Lys	Leu	Met	Thr	Val	Arg	Ile	Val	Xaa	His	Ala	Phe	Glu	Ile	Ile	Arg
			35				40						45		

Leu	Leu	Thr	Gly	Xaa	Glu	Pro	Ser	Ala	Gly	Pro	Gly	Glu	Arg	His	His
			50				55				60				

Gln	His	Xaa	Ser	Pro	Gly	Arg	Xaa	His	Xaa	His	Trp	Ala	Arg	Arg	Asp
65						70				75					80

Cys

1653

&lt;210&gt; 1586

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1586

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Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr
 1             5             10             15

Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu
          20             25             30

Thr Pro Glu Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile
          35             40             45

Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu
          50             55             60

Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser
 65             70             75             80

Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys
          85             90             95

Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys
          100            105            110

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&lt;210&gt; 1587

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1587

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Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe
 1             5             10             15

```

1654

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val  
20 25 30

Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala  
35 40 45

Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg  
50 55 60

His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile  
65 70 75 80

Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg  
85 90 95

Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala  
100 105 110

Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn  
115 120 125

&lt;210&gt; 1588

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

1655

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1588

Cys Met Leu Xaa Leu Val Leu Xaa Leu Leu Ser Ser Ser Ser Ala Glu  
1 5 10 15

Glu Tyr Xaa Gly Leu Ser Ala Asn Gln Cys Ala Val Xaa Ala Lys Asp  
20 25 30

Xaa Val Xaa Cys Gly Tyr  
35

<210> 1589

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1589

Gly Thr Ala Thr Gln Gly Leu Ser Pro Val His Thr Pro Gly Asp Gly  
1 5 10 15

Arg Leu His Lys Ala Val Ser Val Gly Pro Arg Val His Ile Ile Glu  
20 25 30

Glu Leu Gln Ile Phe Ser Ser Gly Gln Pro Val Ala Glu Ser Ala Pro  
35 40 45

Gly Thr Pro Thr Gly Gly Leu  
50 55

<210> 1590

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1590

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala

1656

1 5 10 15  
Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly  
20 25 30  
Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu  
35 40 45  
Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile  
50 55 60  
Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg  
65 70 75 80  
Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu  
85 90

&lt;210&gt; 1591

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens.

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1657

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (125)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1591

Xaa Gly Gly Phe Xaa Ile Thr Xaa Gly Xaa Asp Glu Gly Lys Leu Val  
1 5 10 15

Thr Pro Ala Gly Asp Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser  
20 25 30

Gly Arg Asp Val Ser Gln Lys Val Leu Arg Ser Gln Thr Trp Val Pro  
35 40 45

Arg Leu Pro Ala Ser Glu Ala Xaa Ser Arg His Arg Gly Lys Val Lys  
50 55 60

Ser Phe Pro Lys Asp Asp Pro Ser Lys Pro Val His Leu Thr Ala Phe  
65 70 75 80

Leu Gly Tyr Lys Ala Gly Met Thr His Ile Val Arg Glu Val Asp Arg  
85 90 95

Pro Gly Ser Lys Val Asn Lys Lys Glu Gly Gly Gly Gly Cys Asp His  
100 105 110

Cys Xaa Asp Thr Xaa His Gly Gly Leu Trp Ala Leu Xaa Ala Thr Leu  
115 120 125

Glu Asn Pro Arg Xaa Leu Arg Asn Phe Lys Asn  
130 135

&lt;210&gt; 1592

&lt;211&gt; 42

&lt;212&gt; PRT

1658

&lt;213&gt; Homo sapiens

&lt;400&gt; 1592

Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe  
1 5 10 15

Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met  
20 25 30

Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys  
35 40

&lt;210&gt; 1593

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1659

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1593

Trp	Ile	Pro	Arg	Ala	Gly	Ser	Leu	Ser	Leu	Ala	Gln	Arg	Arg	Gly
1				5				10				15		

Xaa	Thr	Lys	Thr	Tyr	Thr	Val	Gly	Xaa	Glu	Glu	Cys	Thr	Val	Xaa	Pro
		20						25					30		

Xaa	Leu	Ser	Ile	Pro	Cys	Lys	Leu	Gln	Ser	Gly	Thr	His	Cys	Xaa	Trp
		35					40					45			

Thr	Asp	Gln	Leu	Leu	Gln	Gly	Xaa	Glu	Lys	Gly	Xaa	Gln	Xaa	Arg	His
	50					55					60				

Leu	Ala	Cys	Leu	Pro	Arg	Glu	Pro	Gly	Leu	Gly	Thr	Trp	Gln	Xaa	Leu
65					70					75					80

Arg	Ser	Gln	Ile	Ala
				85

&lt;210&gt; 1594

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1660

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (151)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1594

Ala	Ala	Arg	Gly	Ala	Gln	Arg	Asp	Thr	Arg	Glu	Pro	Thr	Met	Ala	Pro
1				5					10					15	

Phe	Glu	Pro	Leu	Ala	Ser	Gly	Ile	Leu	Leu	Leu	Leu	Trp	Leu	Ile	Ala
			20					25					30		

Pro	Ser	Arg	Ala	Cys	Thr	Cys	Val	Pro	Pro	His	Pro	Gln	Thr	Ala	Phe
			35				40					45			

Cys	Asn	Ser	Asp	Leu	Val	Ile	Arg	Ala	Lys	Phe	Val	Gly	Thr	Pro	Glu
	50					55					60				

Val	Asn	Gln	Thr	Thr	Leu	Tyr	Gln	Arg	Tyr	Glu	Ile	Lys	Met	Thr	Xaa
65					70					75					80

Met	Tyr	Lys	Gly	Phe	Gln	Ala	Leu	Gly	Asp	Ala	Ala	Asp	Ile	Arg	Phe
				85					90					95	

Val	Tyr	Thr	Pro	Ala	Met	Glu	Ser	Val	Cys	Xaa	Tyr	Phe	His	Arg	Ser
			100					105					110		

His	Asn	Arg	Ser	Glu	Glu	Phe	Leu	Ile	Xaa	Gly	Lys	Leu	Gln	Asp	Gly
	115						120					125			

Leu	Leu	His	Ile	Thr	Thr	Cys	Xaa	Phe	Val	Ala	Pro	Trp	Asn	Ser	Leu
	130					135					140				

1661

Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa  
 145 150 155 160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys  
 165 170 175

Arg Val Gly Thr His Cys Leu  
 180

<210> 1595

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1595

Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly Ser Tyr Gln  
 1 5 10 15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu  
 20 25 30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys  
 35 40 45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr  
 50 55 60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln  
 65 70 75 80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe  
 85 90 95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln  
 100 105 110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly  
 115 120 125

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val  
 130 135 140

Thr Glu His Leu Gly Leu Xaa Thr Leu  
 145 150

<210> 1596

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1596

Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly  
 1 5 10 15

Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly  
 20 25 30

Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala  
 35 40 45

Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys  
 50 55 60

Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe  
 65 70 75 80

Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly  
 85 90 95

Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg  
 100 105 110

<210> 1597

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

1663

<220>  
<221> SITE  
<222> (71)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597  
Ile Phe Glu Asp Ser Asp Ser Leu Arg Leu Arg Arg Asp Val Leu Pro  
1 5 10 15

Ala Ala Xaa Val Gln Ala Ala Leu Pro Ala Thr Ser Cys Val Pro His  
20 25 30

Ala Lys Val Pro Lys Ser His Val His Pro Arg Ser Ala Leu Ser Leu  
35 40 45

Thr Cys Leu Leu Leu Val His Leu Ser Ile Ala His Leu His Leu Ala  
50 55 60

Ser Ile Asn Ala Leu Leu Xaa Gln Pro Tyr His Pro Gly Ser Xaa Xaa  
65 70 75 80

Ser Pro

<210> 1598  
<211> 52  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (3)  
<223> Xaa equals any of the naturally occurring L-amino acids

1664

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (26)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (36)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (47)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1598  
Xaa Lys Xaa Gly Arg Asn Lys Ala Arg Pro Leu Thr Ser Leu Arg Xaa  
1 5 10 15  
Thr Phe Xaa Ala Thr Phe Cys Pro Val Xaa Gly Thr Tyr Ile Leu Asn  
20 25 30  
Asp Cys Pro Xaa Thr His Ser Gly Ile Phe Phe Phe Leu Lys Xaa Xaa  
35 40 45  
Xaa Lys Ala Phe  
50



1665

<210> 1599  
<211> 32  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (26)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1599  
Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu  
1 5 10 15

Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe  
20 25 30

<210> 1600  
<211> 19  
<212> PRT  
<213> Homo sapiens

1666

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (15)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600  
 Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe  
           1                  5                  10                  15

Phe Lys Lys

<210> 1601  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (20)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1601  
 Arg Xaa Asn Arg Val Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe  
           1                  5                  10                  15

Phe Phe Phe Xaa Pro Xaa  
                   20

1667

&lt;210&gt; 1602

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1602

Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro  
 1 5 10 15

Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val  
 20 25 30

Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro  
 35 40 45

Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe  
 50 55 60

Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe  
 65 70 75 80

Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr  
 85 90 95

Phe Xaa Thr Asn Ser Gln Ser Glu  
 100

&lt;210&gt; 1603

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1668

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1603

Phe	Leu	Met	Leu	Ser	Phe	Met	Gly	Ile	Val	Thr	Phe	Leu	Phe	Ser	Lys
1				5					10					15	

Ser	His	Cys	Trp	Asn	His	Gln	Gly	Cys	Gly	Met	Ser	Leu	Xaa	Val	Leu
		20					25						30		

Phe	Met	Gln	Val	Thr	Val	Thr	Phe	Ala	Ile	Met	Ala	Xaa	Phe	Glu	Thr
		35					40					45			

Leu	Ile	Met	Cys	Phe	Tyr	Phe	Phe	Ile	Pro	Val	Lys	Met	Xaa	Xaa	Lys
	50					55					60				

Arg	Lys	Lys	Val	Val	Ile	Ala	Pro	Xaa	Ile	Ser	Gly	Ser	Lys	Leu	Xaa
65					70					75				80	

Xaa	Lys	Phe	Pro	Lys	Lys
				85	

&lt;210&gt; 1604

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1669

&lt;400&gt; 1604

Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro  
1 5 10 15

Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser  
20 25 30

Val Asp

&lt;210&gt; 1605

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1605

Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser  
1 5 10 15

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser  
20 25 30

Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa  
35 40 45

Ile Thr Leu Gly Lys  
50

&lt;210&gt; 1606

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1671

&lt;400&gt; 1606

Asp Ala Trp Ala Asp Ala Trp Gly Lys Val Ser Ser Ser Leu Xaa Ser  
1 5 10 15  
Xaa Ile Cys Xaa Leu Xaa Xaa Arg Lys Val Arg Xaa Gly Gln Xaa Met  
20 25 30

&lt;210&gt; 1607

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1607

Leu Ile Met Asp Thr Ile Leu Asn Lys Xaa Ile Gln Val Lys Pro Val  
1 5 10 15  
Lys Glu Lys Glu Ile Lys Val Ser Gly Ser Cys Xaa Ser Xaa Val  
20 25 30

&lt;210&gt; 1608

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (74)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (77)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (97)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (101)  
<223> Xaa equals any of the naturally occurring L-amino acids



1673

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1608

Asp	Pro	Gln	Gly	Ile	Arg	His	Pro	His	Ile	Val	Gln	Leu	Lys	Asp	Phe
1				5					10					15	

Gln	Cys	Glu	Leu	Gly	Ala	Gly	Xaa	Leu	Pro	Lys	Gly	Val	Glu	Lys	Asp
		20						25					30		

Ile	Xaa	Phe	Arg	Pro	Xaa	Leu	Cys	Leu	Leu	Lys	Gln	Gln	Leu	Gly	Thr
		35					40						45		

Val	Glu	Pro	Ile	Asn	Leu	Xaa	Phe	Asn	Pro	Leu	Gly	Ser	Phe	Phe	Ala
	50					55					60				

Gly	Gln	Gly	Gly	Gly	Arg	Lys	Pro	Trp	Xaa	Phe	Xaa	Xaa	Phe	Xaa	Ser
65					70					75					80

Gln	Leu	Asn	Pro	Gly	Gln	Xaa	Asn	Phe	Leu	Gly	Pro	Leu	Lys	Glu	Lys
				85						90				95	

Xaa	Phe	Gly	Pro	Xaa	Xaa	Xaa	Xaa	Leu	Ser	Xaa
				100				105		

&lt;210&gt; 1609

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1674

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1609

Arg Gln Thr Ser Thr Ala Lys Leu Gln Lys Gly Gly Phe Cys Ser Arg  
1 5 10 15

Arg Lys Glu Asp Val Tyr Leu Gln Gly Ala Lys Gln Gly Glu Leu Gly  
20 25 30

Ser Ser Cys Leu Arg Pro Asn Leu His Asp Asp Leu Gln Ala Arg Val  
35 40 45

Phe Lys Xaa Ser Gly Lys Phe Pro Gly Lys Pro Glu Val Lys Gly Gln  
50 55 60

Asn Cys Lys Ser Val Glu Ile Gly  
65 70

&lt;210&gt; 1610

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1610

Leu Tyr Arg Gly Ser Val Gln Gly Arg Val Glu Leu Leu Ser Glu Gly  
1 5 10 15

Ser Leu Gly Gly Pro Leu Arg Pro Gly Pro Asp Pro Val Leu Gln Gly  
20 25 30

Leu Ser Gln Gly Gln Val His Gly Glu Thr Met Gly Cys Leu Ser Asp  
35 40 45

Thr Asp Leu Ala Leu Leu Ser Pro Pro Ile Arg Leu Ser Phe Leu Cys  
50 55 60

Ser Glu Cys Leu Gln Gly Leu Asp Pro Gly Lys Glu Phe  
65 70 75

&lt;210&gt; 1611

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1675

<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (42)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (71)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1611  
Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa  
1 5 10 15

1676

Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile  
20 25 30

Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp  
35 40 45

Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys  
50 55 60

Phe Xaa Asp Val Lys Ile Xaa Tyr  
65 70

<210> 1612

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1677

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1612

Arg	Glu	Ser	Glu	Met	Leu	Cys	Asn	Leu	Leu	Xaa	Gln	Leu	Lys	His	Xaa
1				5					10					15	

Met	Leu	Arg	Gly	Arg	Asn	Tyr	Lys	Xaa	Cys	Ser	Asn	Leu	Phe	Trp	Val
			20					25					30		

Ile	Xaa	Met	Tyr	Leu	Trp	Val	Gln	Ala	Leu	Phe	Gly	Gly	Phe	Xaa	Phe
		35					40					45			

Gln	Arg	Asn	Xaa	Xaa	Lys	Val	Xaa	Leu	Leu	Ile	Lys	Lys	Arg	Lys
	50					55					60			

&lt;210&gt; 1613

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1613

Lys	Ser	Xaa	Ser	Xaa	Thr	Ala	Gly	Asp	Arg	Xaa	Xaa	Thr	Ser	Gly	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1678

1	5	10	15
Pro Gly Leu Gln Glu Phe			
20			
<210> 1614			
<211> 85			
<212> PRT			
<213> Homo sapiens			
<220>			
<221> SITE			
<222> (5)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (6)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (14)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (15)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (20)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (46)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (51)			
<223> Xaa equals any of the naturally occurring L-amino acids			
<220>			
<221> SITE			
<222> (63)			
<223> Xaa equals any of the naturally occurring L-amino acids			

1679

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1614

Asp Gly Gly Phe Xaa Xaa Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe  
 1 5 10 15

Phe Phe Tyr Xaa Trp Val Ile Ser Thr Cys Phe Ile Pro Ala Ile Lys  
 20 25 30

Ile Ile Lys Asn Ile Ser Asn Tyr Tyr Thr His Thr Lys Xaa Val Gln  
 35 40 45

Ser Leu Xaa Leu Pro Pro Thr Pro Arg Gly Lys Asn Cys Phe Xaa Leu  
 50 55 60

Trp Glu Val Val Ser Glu Thr Arg Gly Gln Xaa Thr Gln Xaa, Arg Leu  
 65 70 75 80

Gly Gly Xaa Arg Xaa  
 85

&lt;210&gt; 1615

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1615

Tyr Ala Val Pro Cys Ser Gly Ile Gln Gly Arg Phe Ser Pro Leu Ser  
 1 5 10 15

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys  
                   20                                  25                                  30  
 Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser Lys Trp Asp Pro Leu  
                   35                                  40                                  45  
 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser  
                   50                                  55                                  60  
 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn  
                   65                                  70                                  75                                  80  
 Trp Trp Pro Pro Gln  
   85

&lt;210&gt; 1616

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1616

Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys  
       1                                  5                                  10                                  15



1681

Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa  
                   20                  25

&lt;210&gt; 1617

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1617

Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe  
   1                  5                  10                  15

Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln  
                   20                  25                  30

Ile Trp Ala Xaa Cys  
                   35

&lt;210&gt; 1618

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1682

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1618

Gly Xaa Gly Phe Xaa Pro Ser Pro Ser Cys Phe Pro Gln Cys Leu Lys  
1 5 10 15

Xaa Leu Asp Gly Leu Xaa  
20

&lt;210&gt; 1619

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1619

Gln Ser Ile Ser Leu Asn Arg Asp Gly Val Glu Glu Leu Lys Val Gly  
1 5 10 15

Ile Cys Ser Leu Met Thr Thr Met Phe Thr Ile Cys Cys Gly Leu Val  
20 25 30

Gly Ala Leu Arg Gln Glu Asn His Val Glu Pro Thr Gly Ser Arg Pro  
35 40 45

Ala Trp Glu Thr  
50

&lt;210&gt; 1620

1683

<211> 52  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (28)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1620  
Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg  
1 5 10 15

Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His  
20 25 30

Pro Asp Xaa Ala Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys  
35 40 45

Ser Tyr Val Ile  
50

<210> 1621  
<211> 113  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (108)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (112)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1621  
Leu Phe Pro Ala Pro Ala Pro Pro Pro Ala Pro Ala Phe Ala Pro Pro

1684

1                      5                      10                      15  
 Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro  
                          20                      25                      30  
 Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr  
                          35                      40                      45  
 Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro  
                          50                      55                      60  
 Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala  
                          65                      70                      75                      80  
 Ile Ile Leu Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu  
    85                      90                      95  
 Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa  
    100                      105                      110  
  
 Ile

&lt;210&gt; 1622

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1622

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu

1

5

10

15

Phe Val Leu Tyr Gln

20

&lt;210&gt; 1623

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1685

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1623

Leu Arg Thr Ser Cys Phe Xaa Leu Asn Xaa Met Ile His Phe Ile Lys

1

5

10

15

Val Pro Val Ile Lys Tyr Xaa Val Lys Tyr Leu Leu Xaa Trp Thr Ile

20

25

30

Xaa Cys Lys Leu Pro Phe Xaa Xaa

35

40

&lt;210&gt; 1624

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1686

<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (40)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (78)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1624  
Ile His Pro Xaa Leu Ala Ser Gln Val Ala Gly His Tyr Arg Arg Glu  
1 5 10 15  
His Ser Arg Pro Arg Leu Lys Xaa Ala Tyr Ser Lys Lys Gln Phe Gln  
20 25 30

1687

Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly  
                   35                                  40                                  45

Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu  
           50                                  55                                  60

Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg  
       65                                  70                                  75                                  80

Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Gly Xaa  
                                   85                                  90                                  95

&lt;210&gt; 1625

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa  
       1                                  5                                  10                                  15

Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg  
                   20                                  25                                  30

Leu Leu Gly Leu Ile Thr Ala Pro  
           35                                  40

&lt;210&gt; 1626

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1688

<220>  
<221> SITE  
<222> (8)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (26)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1626  
Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala  
1 5 10 15  
Arg Leu His Leu Lys Lys Lys Lys Xaa  
20 25

<210> 1627  
<211> 171  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (89)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (118)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (119)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (121)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE



1689

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1627

Glu	Leu	Gln	Ala	Ser	Glu	Asn	Gln	Pro	Cys	Ser	Arg	His	Ala	Arg	Pro
1				5				10						15	

Arg	Leu	Pro	Ser	Ser	Leu	Phe	Pro	Leu	Pro	Ala	Gln	Pro	Ser	Leu	Pro
			20					25						30	

Ser	Ser	Ala	Gly	Lys	Ala	Gly	Thr	His	Ser	Gly	Cys	Leu	Pro	Pro	Gly
		35				40						45			

Gly	Lys	Glu	Arg	Glu	Gly	Gly	Trp	Val	Gly	Xaa	Gly	Leu	Pro	Pro	Gly
	50					55					60				

Asn	Val	Thr	Leu	Pro	Gly	Pro	Arg	Ile	Ala	Pro	Gly	Pro	Lys	Pro	Lys
65					70					75				80	

Ala	Gln	Pro	Gly	Thr	Lys	Leu	Arg	Xaa	Ser	Ala	Gly	Arg	Ser	Tyr	Phe
				85					90					95	

Tyr	Leu	Pro	Pro	Pro	Leu	Leu	Val	Pro	Pro	Pro	Gly	Arg	Leu	Ala	Ala
		100						105					110		

Glu	Ser	Asp	Thr	Gly	Xaa	Xaa	Lys	Xaa	Xaa	Xaa	Glu	Pro	Trp	Tyr	Pro
		115					120						125		

Ile	Leu	Gly	Pro	Gly	Pro	Xaa	Leu	Gly	Pro	Asn	Pro	Ser	Ser	Val	Asp
	130					135					140				

Asn	Gly	Val	Trp	Asn	Lys	Cys	Cys	Leu	Ser	Xaa	Gln	Gln	Lys	Lys	Lys
145					150					155				160	

Lys	Arg	Gly	Gly	Arg	Phe	Arg	Gly	Phe	Lys	Ala
			165						170	

1690

<210> 1628  
<211> 120  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (93)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (110)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (111)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1628  
Arg Pro Ala Arg Ser Pro Ala Glu Val Gly Ser Arg Gly Leu Ser Ser  
1 5 10 15

Pro Pro Arg Ala His His Arg Pro Val Ser Pro Ala Ala Pro Gly Arg  
20 25 30

Trp Ser Thr Ser Ala Arg Val Arg Thr Arg Lys Met Val Asn Tyr Ala  
35 40 45

Trp Ala Gly Arg Xaa Arg Arg Lys Leu Trp Trp Arg Ser Val Ala Val  
50 55 60

Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr Arg Gly Glu Arg Leu  
65 70 75 80

Asn Arg Thr Ile Leu Val Ser Trp Phe Pro Ser Glu Xaa Phe Pro Gln  
85 90 95

1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly  
                   100                  105                  110

Ile Phe Ile Arg Xaa Lys Arg Ile  
                   115                  120

&lt;210&gt; 1629

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys  
   1                  5                  10                  15

Cys Phe Val Lys Arg Lys Arg Lys Lys Lys Pro Lys Leu Val Arg Val  
                   20                  25                  30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val  
                   35                  40                  45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu  
                   50                  55                  60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro  
                   65                  70                  75                  80

Gly Arg Gly Cys Arg Lys  
                   85

&lt;210&gt; 1630

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys  
   1                  5                  10                  15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser  
                   20                  25                  30

1692

Glu Phe Phe  
35

<210> 1631  
<211> 40  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (31)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1631  
His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro  
1 5 10 15  
Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln  
20 25 30  
Ala Lys Leu Ala Leu Thr Met Pro  
35 40

<210> 1632  
<211> 97  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

1694

&lt;400&gt; 1632

Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro  
1 5 10 15

Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile  
20 25 30

Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly  
35 40 45

Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly  
50 55 60

Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly  
65 70 75 80

Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp  
85 90 95

Gly

&lt;210&gt; 1633

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1695

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1633

Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro Phe Xaa Arg  
 20 25 30

Ile Gln Xaa Tyr Val Xaa Xaa Xaa Ala Thr Ser  
 35 40

&lt;210&gt; 1634

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1634

Ala Arg Ala Ala Leu Ser Ala Thr Lys Thr Cys Arg Pro Ala Phe Arg  
 1 5 10 15

Gly Ala Ser Ala Ala Pro Arg Gly Gly Gly Pro Ala Arg Ser Pro Gly  
 20 25 30

Arg Val Leu Gly Arg His Ala Ala Gly Ser Leu Ala Arg Leu Val Gly  
 35 40 45

Arg Ser Arg Gly Phe Trp Leu Leu Gly Gly Glu Val Lys Ser Phe Cys  
 50 55 60

Arg Cys Trp Gly Arg Arg Thr Arg Arg Glu Arg Lys Lys Lys Lys Lys  
 65 70 75 80

Lys Xaa Leu Gly Lys Tyr Phe Xaa  
 85

1696

&lt;210&gt; 1635

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1635

Tyr	Ser	His	Ser	Gly	Phe	Cys	Ser	Pro	Thr	Asp	Glu	Asp	Arg	Cys	Thr
1				5					10					15	

Asn	Glu	Ala	Asp	Gly	Asn	His	Pro	Val	Glu	Val	His	Leu	Arg	Ser	Asp
			20					25					30		

Pro	Asp	Asp	Ala	Arg	Ala	Met	Thr	Gly	Pro	Ala	Gly	Val	Ala	Pro	Arg
		35					40					45			

Gly	Asp	Gln	Pro	Trp	Ser	Ser	His	Arg	Arg	Lys	Pro	Leu	Arg	Ser	Gly
	50					55					60				

Lys	Arg	Arg	Arg	Lys	Xaa	Lys	Trp	Gln	Lys	Gln	Lys	Glu	Pro	Gln	Ser
65					70				75					80	

Ser	Ile	Gly	Asp	His	Ser	Met	His	Phe	Leu	Pro	Ala	Ala	Thr	Gln	Thr
				85					90					95	

Leu	Pro	Glu	Leu	Leu	Xaa	Asn	Leu	Met
			100				105	

&lt;210&gt; 1636

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



1697

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1636

Gln	Arg	Pro	Arg	Xaa	Xaa	Gly	Thr	Gly	Ser	Gly	Pro	Pro	Gly	Pro	Gly
1				5				10					15		

Lys	Ala	Ser	His	Gly	Gly	Gly	Ala	Pro	Val	Ser	Arg	Ser	Gly	Thr	Gly
			20				25						30		

Ser	Glu	Asp	Gly	Arg	Glu	Ser	Arg	Ala	Thr	Val	Val	Val	Xaa	Cys
		35				40						45		

&lt;210&gt; 1637

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1698

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1637

Gly Asp Pro Pro Glu Gly Pro Ala Thr Ser Pro Leu Thr Asn Ser Xaa  
1 5 10 15

His Pro Xaa Ser Xaa Gly Thr Ala Ala Ala Thr Gln Arg Arg Xaa Ser  
20 25 30

Glu Gln Gly Gly Arg Xaa Thr Cys Gly Pro Ala Gly Ala Gly Ser Pro  
35 40 45

Xaa Xaa Pro Pro Arg Ala Xaa  
50 55

&lt;210&gt; 1638

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1699

<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (30)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1700

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1638

Ile	Arg	Xaa	His	Ala	Thr	Xaa	Tyr	Arg	Gly	Xaa	Phe	Cys	Xaa	Arg	Arg
1					5				10					15	

Thr	Xaa	Xaa	Xaa	Leu	His	Ser	Ala	Asn	Val	Thr	Thr	Xaa	Xaa	Leu	Leu
			20					25						30	

Leu	Xaa	Xaa	Phe	Tyr	Xaa	Xaa	Arg	Xaa	Xaa	Ala	Xaa	Val	Asn	Ile	Ser
			35				40					45			

Xaa	Val	Pro	His	Cys	Pro	Ile
	50				55	

&lt;210&gt; 1639

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1639

Ile	Cys	Pro	Gln	Asn	Pro	Leu	Asn	Pro	Leu	Val	Asn	Leu	Thr	Xaa	Ser
1				5				10						15	

1701

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu  
                   20                  25                  30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu  
           35                  40                  45

Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr  
       50                  55

<210> 1640

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys  
   1                  5                  10                  15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Pro Xaa  
           20                  25                  30

Gly Xaa Pro Xaa Pro  
           35

<210> 1641

<211> 41

1702

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1641

Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp  
1 5 10 15

Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp  
20 25 30

Leu Cys Arg Val Leu Thr Cys Gln Gly  
35 40

&lt;210&gt; 1642

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1703

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1642

Xaa	Pro	Ala	Ala	Ser	Tyr	Leu	Met	Thr	Leu	Met	Glu	Pro	Leu	Ser	Leu
1				5					10					15	

Ile	Xaa	Xaa	Xaa	Leu	Ser	Pro	Pro	Leu	Xaa	Xaa	Ser	Lys	Glu	Asn	His
			20					25					30		

Phe	Asp	Ala	Arg	Ser	Cys	Leu	Xaa	Ser	Xaa	Pro	Lys	Cys	Ser	Cys	Ser
		35					40					45			

Xaa	Pro	Xaa	Pro	Gly	Ile	Ser	Leu	Pro	Arg	Asp	Lys	Ser	Ala	Ser	Glu
	50					55					60				

Ile	Leu	His	Asp	Ser	Leu	Cys	Phe	Gln	Asn	Pro	Gly	Leu	Phe	Cys	Ile
65					70					75					80

Ser	Ser	Phe	Leu	Gly	Pro	Ala	Ser	Cys	Val	Pro	Leu	Lys	Gly	Xaa	Trp
				85					90					95	

Ala Lys Thr

&lt;210&gt; 1643

&lt;211&gt; 42

&lt;212&gt; PRT

1704

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1643

Lys	Xaa	Pro	Xaa	Asn	Leu	Gly	Lys	Ala	Arg	Leu	Gln	Val	Pro	Val	Arg
1				5					10				15		

Asn	Ser	Arg	Val	Asp	Leu	Arg	Val	Phe	Ile	Tyr	Ile	Asp	Ile	Tyr	Ile
			20					25					30		

Asp	Ile	Tyr	Arg	Tyr	Ile	Tyr	Arg	Tyr	Ile
		35					40		

&lt;210&gt; 1644

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1705

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1644

Arg	Val	Gly	Val	Arg	Leu	Ala	Gln	Val	Pro	Xaa	His	Leu	Thr	Ser	Arg
1				5					10					15	

Ser	His	His	Pro	His	Pro	Val	Phe	His	Xaa	Arg	Leu	Lys	Ala	Thr	Met
			20					25					30		

Arg	Met	Xaa	His	Thr	Glu	Ala	Xaa	Met	Xaa	Xaa	Asn	His	Leu
		35						40				45	

&lt;210&gt; 1645

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1645

His	Val	Arg	Leu	Lys	Pro	Ile	Phe	Ser	Pro	Phe	Phe	Leu	Leu	Phe	Ser
1				5					10					15	

Leu	Ala	Ala	His	Ile	Val	Pro	Leu	Phe	Tyr	Glu	Pro	Gln	Phe	Ser	Gly
			20					25					30		

Leu	Ser	Leu	Lys	Lys	Lys	Ser	Ser	Leu	Asn	Ile	Ala	Phe	Arg	Lys	Leu
		35						40					45		

Leu	Phe	Leu	Asp	Lys	Lys	Ser	Tyr	Thr	Leu	Lys	Lys	Lys	Lys	Thr	Phe
		50				55					60				

Ser	Arg	Lys	Ile	Tyr
				65

&lt;210&gt; 1646

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

1706

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

Ile Ile Cys Phe Val Leu Ser Phe Ile Tyr His Phe Phe Leu Tyr Lys  
1 5 10 15

Ser Ile Ile Ser Arg Phe Leu Tyr Tyr Met Ile Asp Ile Asn Trp Val  
20 25 30

Ile Ser Ser Arg Gln Phe Val Phe Ser Xaa Xaa Pro Pro Ser Thr Val  
35 40 45

Ser Gln Arg Pro Asp Xaa Val Gly Lys Val Phe Phe Leu Arg Ile Val  
50 55 60

Lys Gly Ser Xaa Gln Leu Gly Leu Ile Lys Ala Xaa Xaa Pro  
65 70 75

<210> 1647

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1647

1707

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser  
1 5 10 15

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu  
20 25 30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu  
35 40 45

Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr  
50 55

&lt;210&gt; 1648

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1648

Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg  
1 5 10 15

Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu  
20 25 30

Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg  
35 40 45

Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg  
50 55

&lt;210&gt; 1649

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1708

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (94)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1649

Val	Pro	Pro	Pro	Val	Pro	Trp	Gly	Gly	Pro	Xaa	Arg	Glu	Gly	Glu	Val
1				5					10					15	

Ser	His	Thr	Lys	Ala	Asp	Ala	Pro	Leu	Val	Gly	Gly	Xaa	Trp	Pro	Gly
			20					25					30		

Lys	Ile	Glu	Gly	Cys	Ala	Gly	Leu	Pro	Leu	Arg	Ala	Ala	Gln	Thr	Ala
		35					40					45			

Leu	Met	Cys	Gly	Gly	Xaa	Ala	Arg	Trp	Val	Arg	Ala	Gln	Glu	Val	Ala
	50					55					60				

Pro	Xaa	Thr	Val	Ala	Asp	Xaa	Leu	Pro	Arg	Val	Pro	Gly	Ser	Ser	Leu
	65				70					75					80

Tyr	Pro	Trp	Tyr	Ala	Xaa	Asn	Xaa	Trp	Phe	Pro	His	Pro	Xaa	Ala	Ala
				85					90					95	

Lys	Ser	Leu	Phe	Pro	Trp	Ile	Ser	Gln	Ala	Lys	Leu	Gly	Leu
		100						105					110

1709

<210> 1650  
<211> 74  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (28)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1650  
Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro  
1 5 10 15  
Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr  
20 25 30  
Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala  
35 40 45  
Gln Gly Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu  
50 55 60  
Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro  
65 70

<210> 1651  
<211> 83  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (30)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1710

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1651

Asn Lys Gly Gly Gly Arg Met Met Thr Tyr Pro Glu Val Leu Pro Leu  
1 5 10 15

Thr Ala Arg Thr Gly Ala Cys Ser Val Pro Trp Glu His Xaa Ala Gln  
20 25 30

Leu Ser Gly Val Gln Ala Val Gly Ser Phe Pro Asn Xaa Ser Ile Ser  
35 40 45

Xaa Pro Xaa Xaa Leu Lys Pro Val Gly Gln Ile Ser Lys Xaa Leu Xaa  
50 55 60

Xaa Arg Xaa Pro Phe Thr Asn Pro Arg Phe Cys Gly Gln Cys Pro Lys  
65 70 75 80

Gly Val Gly

1711

<210> 1652  
<211> 90  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (41)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (43)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (89)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652  
Phe Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu

1

5

10

15

1712

Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser  
                   20                                  25                                  30  
 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile  
                   35                                  40                                  45  
 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser  
                   50                                  55                                  60  
 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser  
                   65                                  70                                  75                                  80  
 Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe  
                                   85                                  90

&lt;210&gt; 1653

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1653

Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser  
           1                                  5                                  10                                  15



1713

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe  
20 25 30

Phe Leu Phe Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa  
35 40 45

Xaa Ala Ile Lys Lys Lys Lys  
50 55

&lt;210&gt; 1654

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1714

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1654

Val	Xaa	Ala	Thr	Asn	Leu	Pro	Ser	Leu	Val	Ile	Ala	Xaa	Cys	Ser	Xaa
1				5				10					15		

Ile	Glu	Ser	Leu	Val	Pro	Leu	Leu	Ile	Trp	Pro	Gln	Lys	Pro	Pro	Asn
			20					25					30		

Ser	Pro	Trp	Leu	Ile	Leu	Thr	Val	Xaa	Pro	Lys	Lys	Gly	Thr	Xaa	Ser
		35						40				45			

Leu	Gly	Pro	Leu	Xaa	Lys	Lys	Thr	Leu	Xaa	Lys	Xaa	Asn
	50					55					60	

&lt;210&gt; 1655

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1655

Ala	Ala	Val	Leu	Gln	Thr	Ala	Arg	Arg	Ala	Arg	Ser	Ala	Cys	Arg	Leu
1					5				10				15		

Xaa Xaa Xaa Xaa

1715

20

<210> 1656  
<211> 24  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (17)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1656  
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe  
1 5 10 15

Xaa Asn Xaa Lys Arg Val Leu Leu  
20

<210> 1657  
<211> 34  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (31)

1716

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

Ala Ala Ala Cys Leu Pro Ala Thr Glu Xaa Ser Gln His His Glu Gly  
1 5 10 15

Leu Asp Leu Leu Ser Pro Leu Pro Gly Arg Glu Gly Leu Gly Xaa Pro  
20 25 30

Ser Xaa

<210> 1658

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1658

Cys Lys Gln Tyr Leu Thr Asn Pro Gln Val Leu Asn Tyr Gln Thr Cys  
1 5 10 15

Ile Lys Asn Phe Gly Trp Gly Asp Leu Gly Ala Glu Pro Asn Leu Arg  
20 25 30

Ala Val His Ala Lys Thr Ser Pro Val Lys Ala Asn Tyr Tyr Thr Gln  
35 40 45

Leu Ile Gln  
50

<210> 1659

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1717

<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (62)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (84)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (98)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (115)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

1719

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1659

Ser Thr His Ala Ser Gly His Ser His Ser Gln Ala Ser Leu Ala Gly  
 1 5 10 15

Ser Arg Val Ala Arg Val Arg Cys Leu Leu Gln Leu Gln Asp Asp Arg  
 20 25 30

Pro Glu Asp Ala Leu Leu Leu Phe Leu Pro Gln Pro Arg Gln Glu Ala  
 35 40 45

Thr Xaa Pro Gln Xaa Pro Ser Arg Pro Ser Arg Gly Pro Xaa Trp Leu  
 50 55 60

Gly Leu Leu Lys Lys Ala Glu Xaa Gly Gly His Pro Ser Gln Glu Xaa  
 65 70 75 80

Pro Gly Trp Xaa Gly Glu Xaa Xaa Glu Arg Arg Pro Pro Trp Xaa Leu  
 85 90 95

Asn Xaa Arg Thr Phe Trp Asn Arg Ile Pro Glu Glu Gln Arg Ala Arg  
 100 105 110

Gly Pro Xaa Leu Xaa Xaa Arg Gly Pro Xaa Xaa Val Xaa Pro Trp Gly  
 115 120 125

Phe Leu Glu Xaa Xaa Pro Gly Lys Glu Ser Xaa Leu Arg Gly Gly Xaa  
 130 135 140

Phe Arg Gly Lys Xaa Leu Phe Leu Ile Lys Ala Lys Leu Gly Ile Xaa  
 145 150 155 160

Phe Xaa Lys Arg Lys Gly  
 165

&lt;210&gt; 1660

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1720

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (52)  
<223> Xaa equals any of the naturally occurring L-amino acids



1721

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1660

Ser	Pro	Gly	Leu	Gln	Glu	Phe	Gly	Xaa	Arg	Gly	Xaa	Arg	Asn	Arg	Leu
1				5					10					15	

Asn	Tyr	Ala	Xaa	Xaa	His	His	Xaa	Xaa	Pro	His	Arg	Xaa	Ser	Ile	Pro
			20					25					30		

Thr	His	Ala	Leu	His	Ser	Xaa	Arg	Gly	Asp	Asp	Ala	Xaa	Leu	Thr	Ile
		35					40					45			

Lys	Ile	Xaa	Xaa	Pro	Pro	Met	Val	Leu	Glu	Pro	Thr	Ser	Thr	Pro	Asp
	50					55					60				

His	Xaa	Val	Asp
	65		

&lt;210&gt; 1661

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1661

Leu	Asn	Ala	Asp	Thr	Leu	Met	Asn	Asp	Gln	Gln	Gln	Leu	Ser	Ala	Leu
1				5					10					15	

Lys	Lys	Thr	Leu	Ile	Phe	Glu	Phe	Thr	Cys	Trp	Val	Pro	Gly	Ser	Asn
			20					25					30		

Gly	Gly	Lys	Arg	Pro	Leu	Phe	Ile	Lys	Arg	Gly	Pro	Pro	Phe	Xaa	Xaa
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1722

35

40

45

Pro Lys Asp Phe Leu Xaa Phe Gln Ile Gly Lys Gly Thr  
 50 55 60

&lt;210&gt; 1662

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1662

Thr Val Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Asn Leu  
 1 5 10 15

Glu Val Xaa Gly Ile Xaa Asn Leu Asp Ile Xaa Phe Gly Thr Ser Asn  
 20 25 30

Pro His Ser Pro Thr His Ala Gly Gly Cys Ala Cys Arg Thr Xaa Leu  
 35 40 45

Thr Asp Trp Trp Ile Leu  
 50

1723

&lt;210&gt; 1663

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1663

Ala Arg Glu Lys Leu Cys Val Arg Gly Arg Gly Leu Phe Arg Cys Arg  
1 5 10 15  
Val Ser Ser Ser Cys Thr Leu Phe Lys Ser Leu His Trp Arg Asn Ser  
20 25 30  
Ala Ile Thr Ser Ser Leu Val Ala Glu Gly Arg Gly Asn Ile His Leu  
35 40 45  
Phe Met Pro Val Cys Cys Met Gln Ala Phe Trp Leu Pro Thr Leu Gln  
50 55 60  
Gln Asn Asn Cys Thr Asn Ser Leu Val Pro Ile Pro Pro Thr Glu Ser  
65 70 75 80  
Pro Gly Ala Thr Val Phe Phe Ala Leu His Cys Lys Glu Arg Asp  
85 90 95

&lt;210&gt; 1664

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1724

&lt;400&gt; 1664

Val Asn Gln Glu Thr Thr Pro Val Asp Cys Gly Ala Leu Glu Gly Leu  
1 5 10 15  
Val Gly Val Asn Leu Pro Thr Pro Tyr Asn Cys Gly Arg Ile Gln Lys  
20 25 30  
Ser Leu Ser Phe Tyr Ile His Ser Leu Asp Val Ile Gly Pro Leu Pro  
35 40 45  
Pro Ile Ser Leu Arg Cys His Ala Ser Met Gly Ser Gly Val Val Arg  
50 55 60  
Lys Asn Lys Arg Arg Xaa Asp Ser Leu Val Met Asp Lys Ile Leu Thr  
65 70 75 80  
Thr Val Phe Pro Xaa Gly Ile Pro Tyr Xaa Xaa Phe Asn Phe Phe Phe  
85 90 95  
Ser Leu Lys Asn  
100

&lt;210&gt; 1665

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1725

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1665

Ser Ala Pro Gly Gly Ser Cys Tyr Ser Gly Xaa Pro Arg Val Pro Lys  
1 5 10 15

Cys Xaa Ile Gln Xaa Asp Pro Xaa Ser Xaa Pro Pro Cys Leu Gln Leu  
20 25 30

Val

&lt;210&gt; 1666

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1666

Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Arg Glu Pro Gln  
1 5 10 15

Val Tyr Thr Leu Pro Pro Ser Arg Glu Xaa Met Thr Lys Lys Gln Ser  
20 25 30

Ala Glu Leu Pro Xaa Ser Xaa Gly Phe Tyr Pro Thr Lys Ser Pro  
35 40 45

&lt;210&gt; 1667

&lt;211&gt; 34

&lt;212&gt; PRT

1726

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1667

Leu Glu Ile Thr Leu Gln Gly Glu Pro Lys Leu Arg Pro Pro Lys Pro  
1 5 10 15

Glu Arg Ala Thr Leu Glu Gln Leu Lys Glu His Thr Pro Leu Phe Leu  
20 25 30

Pro Xaa

&lt;210&gt; 1668

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1668

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Xaa

1727

1	5	10	15
Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg			
20	25	30	
Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr			
35	40		

&lt;210&gt; 1669

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1669

Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg
1 5 10 15

Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly
20 25 30

Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly
35 40 45

Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe
50 55 60

Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala
65 70 75 80

1728

Leu Ala Val Xaa Ser Ser Gly Xaa Arg Leu Ala Gly Gly Thr Pro Thr  
                     85                    90                    95

<210> 1670

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1670

Gly Ser Thr His Ala Ser Gly Ser Thr Glu Lys Glu Gly Leu Leu His  
   1                    5                    10                    15

Glu Ala Thr Leu Ser Val His Gln Gly Leu Gly Leu Arg Gly Pro Trp  
                     20                    25                    30

Ser Ser Cys Ser Ser Pro Ala Pro Pro Trp Met His Cys Cys Arg Ala  
                     35                    40                    45

Glu Xaa Pro Leu Pro Gly Pro Ala Leu Gly Phe Leu Glu Thr Ser Phe  
                     50                    55                    60

Ser Phe Ala Ile Phe Phe Lys Trp Glu Lys Gly Gly Gln Leu Ser Leu  
   65                    70                    75                    80

Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser  
                     85                    90                    95



1729

Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa  
                   100                  105                  110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa  
                   115                  120                  125

Phe Leu Val Val Pro Val Xaa Glu Ala Phe Gln Asn  
                   130                  135                  140

&lt;210&gt; 1671

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1671

His Xaa Xaa Met Glu Ser Asp Lys Met Val Thr Gly Ser Trp Gly Pro  
       1                  5                  10                  15

Arg Leu Ser Xaa His Glu Gly Cys Ser Ala Xaa Cys Ile Ser Val Tyr  
                   20                  25                  30

Val Val

&lt;210&gt; 1672

&lt;211&gt; 113

1730

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1672

Arg	Xaa	Leu	Leu	Thr	Ile	Xaa	Glu	Ser	Trp	Tyr	Xaa	Cys	Arg	Tyr	Arg
1				5					10					15	

Ser	Gly	Ile	Pro	Gly	Gly	Ile	Pro	Leu	Ser	Pro	Arg	Asp	Pro	Thr	Leu
			20					25						30	

Ala	Ser	Trp	Pro	Thr	Arg	Ser	Arg	Glu	Ser	Leu	Arg	Glu	Arg	Arg	Arg
			35				40					45			

Ser	Arg	Ala	Ala	Ser	Gly	Leu	Gly	Ile	Arg	Pro	Leu	Gly	Pro	Pro	Leu
			50				55					60			

Val	Ser	Arg	Val	Gly	Arg	Asn	Arg	Arg	Leu	Ala	His	Leu	Ala	Trp	Val
			65			70				75					80

Cys	Pro	His	Val	Val	Ile	Val	Gln	Ile	Asn	Ala	His	Ser	Glu	Leu	Ala
				85					90					95	

Val	Tyr	Phe	Leu	Lys	Phe	Asn	Ile	Val	Phe	Val	Ile	Leu	Lys	Tyr	Leu
			100					105						110	

Leu

&lt;210&gt; 1673

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1731

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1673

Pro Ala Phe Asn Phe Asp Pro Leu Phe Phe Leu Phe Val Arg Cys Thr  
1 5 10 15

Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu  
20 25 30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser  
35 40 45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr  
50 55 60

Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu  
65 70 75 80

Thr Val Phe Ile Xaa Leu  
85

&lt;210&gt; 1674

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1674

Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala  
1 5 10 15

Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro  
20 25 30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro  
35 40 45

Arg Leu Leu Arg Leu Gly Arg Tyr  
50 55

&lt;210&gt; 1675

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1732

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1675

Leu	Val	Cys	Ile	Leu	Pro	Lys	Val	Arg	Xaa	Pro	Thr	Leu	Gly	Ile	Thr
1				5					10					15	

Leu	Leu	Ile	Val	Ile	Leu	Val	Xaa	Ile	Leu	Pro	Gly	Val	Met	Tyr	Ser
			20					25					30		

Leu	Lys	Ala	Leu	Asn	Val	Cys	Ile	Ala	Thr	Xaa	His	Gln	Ile	Leu	Asn
		35						40					45		

Gly	Leu	Ser	Phe	Gly	Trp	Asn	Tyr	Lys	Leu	Lys	Lys	Cys	Phe	Ser	Gly
		50				55						60			

Lys

65

&lt;210&gt; 1676

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1676

Pro	Thr	Glu	Gln	Val	Thr	Leu	Gly	Ile	Thr	Ala	Gln	Ser	Tyr	Ser	Arg
1				5					10					15	

Val	His	Ile	Asn	Asn	Arg	Val	Tyr	Asp	Leu	Asp	Val	Gly	Ser	Gly	His
			20					25					30		

Pro	Asp	Gly	Ala	Ala	Ala	Ile	Lys	Gly	Ser	Phe	Xaa	Gln	Arg	Leu	Lys
			35					40					45		

1733

Ser Tyr Val Ile  
50

&lt;210&gt; 1677

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1677

Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Lys Lys

1

5

10

15

Lys Lys Lys Lys Lys Lys Gly Gly Arg Xaa Lys Gly Ser Lys Leu Thr

1734

20 25 30

Tyr Xaa Cys Met Xaa Arg Xaa Ser  
35 40

<210> 1678  
<211> 49  
<212> PRT  
<213> Homo sapiens

<400> 1678  
Thr Ala Ala Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr  
1 5 10 15  
Asn Val Ala Val Val Arg Met Lys Arg Ala Arg Lys Arg Phe Glu Ile  
20 25 30  
Ala Cys Tyr Arg Asn Lys Ser Ser Ala Gly Gly Gly Leu Trp Lys Lys  
35 40 45  
Thr

<210> 1679  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 1679  
Ala Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln Lys  
1 5 10 15  
Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr  
20 25 30  
Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly  
35 40 45  
Leu Leu Lys  
50

<210> 1680  
<211> 41  
<212> PRT  
<213> Homo sapiens

1735

&lt;400&gt; 1680

Ala Phe Asn Arg Ser Gln Arg Gly Ser Cys Ser Ala Thr Tyr Glu Thr  
1 5 10 15

Pro Thr Gln Lys Gln Val Val Tyr Glu Trp Phe Ser Ala Arg Phe Pro  
20 25 30

Thr Asn Val Arg Cys Val Thr Gly Glu  
35 40

&lt;210&gt; 1681

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1681

Gly Xaa Gly Val Arg Val Asn Val Arg Thr Ser Ala Gly Cys Ser Pro  
1 5 10 15

His Pro Asn Pro Leu Pro Lys Gly Arg Arg Gly Pro Val Thr Gln Phe  
20 25 30

Ala Leu

&lt;210&gt; 1682

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1736

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1682

Ala	Ser	Asn	Ser	Asn	Tyr	Ala	Leu	Ile	Gly	Ala	Leu	Arg	Ala	Val	Ala
1				5					10					15	

Gln	Thr	Ile	Ser	Tyr	Glu	Val	Thr	Leu	Ala	Ile	Ile	Pro	Thr	Ile	Asn
				20				25						30	

Ile	Thr	Asn	Xaa	Leu	Ala	Pro	Leu	Thr	Ser	Pro	Pro	Leu	Ser	Gln	His
		35					40					45			

Lys	Asn	Thr	Pro	Glu	Tyr	Pro	Ala	Ile	Ile	Thr	Leu	Trp	Pro	Tyr	Xaa
	50					55					60				

Ile	Ile	Phe	His	Thr	Arg	Xaa	Asn	Asn	Glu	Pro	Pro	Ser	Xaa	Leu	Xaa
65					70					75				80	

Lys	Gly	Asn	Phe	Xaa
				85

&lt;210&gt; 1683

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1683

Val	Gly	Leu	Glu	Ile	Asn	Met	Leu	Ala	Phe	Ile	Pro	Val	Leu	Thr	Lys
1				5					10				15		

Lys	Ile	Asn	Pro	Arg	Ser	Thr	Glu	Ala	Ala	Ile	Lys	Tyr	Phe	Leu	Thr
				20				25					30		



Gln Ala Thr Ala Ser Ile Ile Leu Leu Ile Ala Ile Leu Phe Asn Asn  
35 40 45

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<210> 1684
<211> 169
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<220>
<221> SITE
<222> (152)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (154)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (156)
<223> xaa equals any of the naturally occurring L-amino acids
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```
<220>
<221> SITE
<222> (161)
<223> xaa equals any of the naturally occurring L-amino acids
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<400> 1684  
Pro Val Ser Ala Lys Lys Glu Lys Lys Val Ser Cys Met Phe Ile Pro  
1 5 10 15

Asp Gly Arg Val Ser Val Ser Ala Arg Ile Asp Arg Lys Gly Phe Cys  
20 25 30

Glu Gly Asp Glu Ile Ser Ile His Ala Asp Phe Glu Asn Thr Cys Ser  
35 40 45

Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu  
50 55 60

1738

Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg  
 65 70 75 80  
 Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser  
 85 90 95  
 Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu  
 100 105 110  
 Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys  
 115 120 125  
 Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu  
 130 135 140  
 Ser Xaa Arg Thr Ser Ser Trp Xaa Ala Xaa Thr Xaa Ser Glu Asp Glu  
 145 150 155 160  
 Xaa Gly Arg Ser Glu His Pro Asp Thr  
 165

&lt;210&gt; 1685

&lt;211&gt; 733

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1685

```

gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60
aattcgaggg tgcaccgtca gtcttctctt tcccccaaaa acccaaggac accctcatga 120
tctcccgga ccttgaggtc acatgcgtgg tgggtggacgt aagccacgaa gacctgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300
ggctgaatgg caaggagtac aagtgaagg tctccaacaa agccctcca acccccatcg 360
agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacgcctcc cgtgctggac tccgacggt ccttcttct ctacagcaag ctcaccgtgg 600
acaagagcag gtggcagcag gggaaactct tctcatgctc cgtgatgcat gaggtctgct 660
acaaccacta cagcagaag agcctctccc tgtctccggg taaatgagt cgacggccgc 720
gactctagag gat
733

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&lt;210&gt; 1686

&lt;211&gt; 5

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1739

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1686

Trp Ser Xaa Trp Ser

1 5

&lt;210&gt; 1687

&lt;211&gt; 86

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1687

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60  
cccgaaatat ctgccatctc aattag 86

&lt;210&gt; 1688

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1688

gcggcaagct ttttgcaaag cctaggc 27

&lt;210&gt; 1689

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1689

ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60  
aaatatctgc catctcaatt agtcagcaac catagtccccg cccctaactc cgcccatccc 120  
gcccctaact ccgcccagtt ccgcccattc tccgcccacat ggctgactaa ttttttttat 180  
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240  
ttttggaggc ctaggctttt gcaaaaagct t 271

&lt;210&gt; 1690

&lt;211&gt; 32

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1690

gcgctcgagg gatgacagcg atagaacccc gg 32

1740

&lt;210&gt; 1691

&lt;211&gt; 31

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1691

gcgaagcttc gcgactcccc ggatccgcct c

31

&lt;210&gt; 1692

&lt;211&gt; 12

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1692

ggggactttc cc

12

&lt;210&gt; 1693

&lt;211&gt; 73

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1693

gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60  
ccatctcaat tag 73

&lt;210&gt; 1694

&lt;211&gt; 256

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1694

ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct 60  
caattagtca gcaaccatag tcccgccct aactccgcc atcccgcccc taactccgcc 120  
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180  
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240  
cttttgcaaa aagctt 256

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P 19/34

US CL : 435/91.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/91.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
MEDLINE, SCISEARCH, GenEmbl Database

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007.	1-12, 14-16, and 21 for SEQ ID NO:1
Y	BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document.	1-12, 14-16, and 21 for SEQ ID NO:2
Y	Database GenEmbl on STN. SKUCE, C. 'Homo sapiens chromosome 20 clone RP4-661120 map q11.23-12', GenEmbl Database, Accession AL031669, Version AL031669.18 GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), see nucleotide position 63147-63482.	1-12, 14-16, and 21 for SEQ ID NO:3
Y	Database GenEmbl on STN. RAKER, V.A. 'Human SnRNP core protein Sm D2 mRNA, complete cds', GenEmbl Database, Accession U15008, Version U15008.1 GI:600747, 10 December, 1994 (10.12.1994), see nucleotide position 23-479	1-12, 14-16, and 21 for SEQ ID NO:4
Y	Database GenEmbl on STN. ELLER et al. 'Cellular retinoic acid-binding protein [human, skin, mRNA, 735 nt]', GenEmbl Database, Accession S74445, Version S74445.1, GI:241541, 7 May, 1993 (07.05.1993), see nucleotide position 7-733.	1-12, 14-16 and 21 for SEQ ID NO:6



Further documents are listed in the continuation of Box C.



See patent family annex.

Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

03 May 2000 (03.05.2000)

Date of mailing of the international search report

26 JUL 2000

Name and mailing address of the ISA/US

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Database GenEmbl on STN. SHARMA et al 'Human class III alcohol dehydrogenase (ADH5) cbi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277.	1-12, 14-16, and 21 for SEQ ID NO:8
Y	Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038.	1-12, 14-16, and 21 for SEQ ID NO:10

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1

Remark on Protest

☐  
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING** This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expression of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.



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